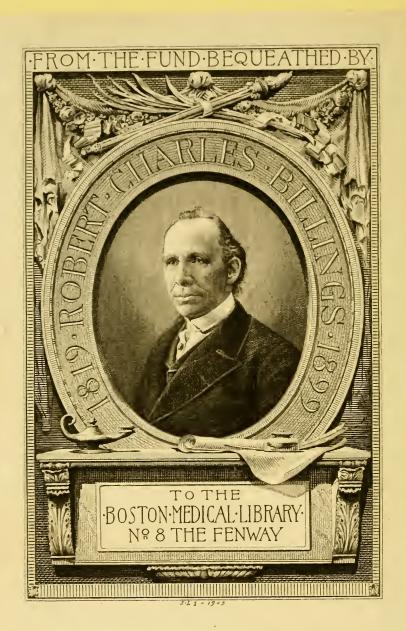
THE GEMS



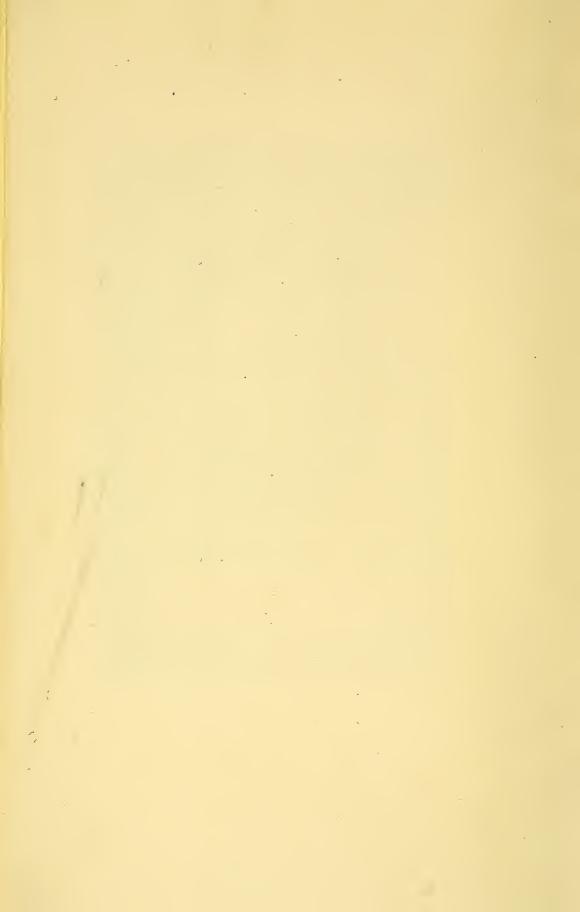
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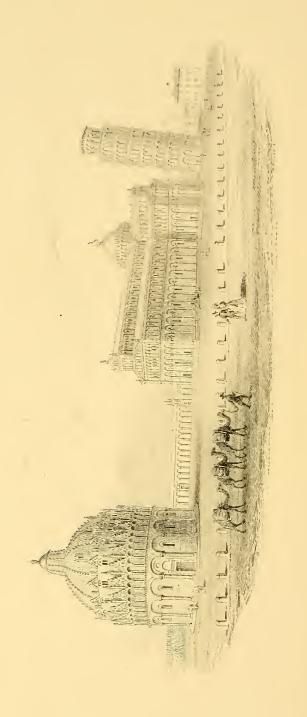
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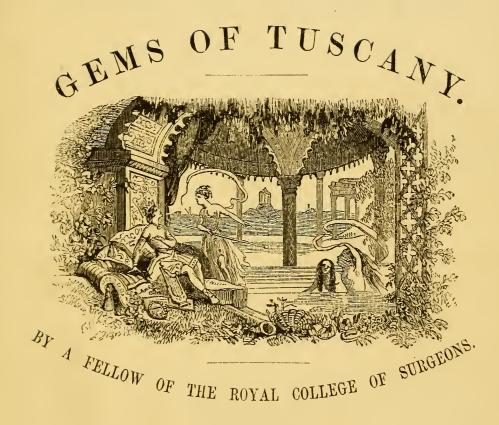








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THE

GEMS OF TUSCANY

BEING

A FRAGMENT FOR THE INVALID AND THE TOURIST IN ITALY.

BY

I Fellow of the Royal College of Surgeons.

"All' onda salutifera Le care membra affida; Ecco son' io la Najada Che lo governo e guida."

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PREFACE.

THE Physician has had his "holiday." Mine has been spent in la bella Italia, where the following pages were written with a view to afford the most concise and useful information to all who visit the genial South for climate; and I have endeavoured to omit nothing which will conduce to the improvement of health, or that may at the same time prove interesting to the tourist and the lover of the picturesque.

The title of this little volume was suggested from the fact that when Physician to Runjeet Sing, pro tem., His Highness showed me the far-famed Diamond "Koh-inoor," long before it came into the possession of our brave troops, or was exhibited to the "million" in the Crystal Palace, and I can testify that at the time I allude to, its brilliancy was such that it lit up the room in a manner no pen can describe. Upon expressing my admiration and astonishment, His Highness smiled and remarked, "There are not, perhaps, many mountains of light, but the whole world is studded with gems."

The truth of the observation occurred to me very forcibly during a recent sojourn in Tuscany, and it is with no little pleasure I now attempt to detail the impressions arising out of an intimacy formed with a few of the "Gems" so liberally studded over a land where all that the eye rests upon appears to bear the assurance that it is—

The Cathedral, with the Leaning Tower of Pisa, is certainly a *Gem* of architecture, of which the eye is never tired in admiring its external and internal beauties. La bella Toscana, with "hair of ebony and eyes d'un noir velouté," chiselled upon the model of an almond, is a *Gem* of beauty.

The limpid waters of the thermee of "Pisa antichissima," are clear as crystal, and, when rightly used, contribute to the preservation of that inestimable jewel— Health.

The illustrations are from those living scenes which must ever be dear to me, from having derived health and pleasure during a winter's residence in a land that all must hope—

"Europe, repentant of her parricide, Shall yet redeem; and, all backward driven, Roll the barbarian tide, and sue to be forgiven."

The English visit Italy either for climate, for pleasure, or for instruction in the fine arts, more than any other nation. They seem to embrace the idea of J. J. Rousseau, "Run, fly to Italy, painter, poet, sculptor and architect, men and women of genius of every class, that is the country which will unfold your talents. The prodigies of art will transport your soul, and fertilize your imagination. The inexhaustibleness of Nature, after having astonished you, will fill you with boldness; you will become a creator after her example; you will dare to contend with all your predecessors, and even with Nature herself. Perhaps you will surpass her, as did the author of the Apollo Belvedere!"

TO THE

FELLOWS AND MEMBERS

OF THE

Royal College of Surgeons of England.

GENTLEMEN,

The members of our arduous calling—whose health and energies are incessantly devoted to the benefit of mankind, and whose self-devotion and industry are not always adequately appreciated by the public—ought to have their "holiday." Many a valuable life might be preserved, and a constitution renovated by a month's tour in Italy, during these days of rapid communication.

After a service of 18 years in India, from the southernmost point of the Peninsula to the shores of the Hyphasis and the Hydaspes, returning to England I had the honor and pleasure of meeting many of you in the "groves of the Academy," and of assisting or presiding at some of our most interesting operations.

Since that period I have for three years become a wanderer on the shores of the Bosphorus; amongst the Arabs of the Desert, to the Sphynx and the Pyramids; the Isles of Greece; and in many other parts of the south; and studied in the schools of Vacca and of Scarpa, of Viussens, Cotunnius, and Vansalva.

After an adventurous career, which would furnish materials for the wildest romance, having been twice victimised—once by the rapacious plunderers of the law, and since by the Arabs of the Desert—I now return to old England to shake hands with many an old friend and good-hearted "Fellow" of the Profession.

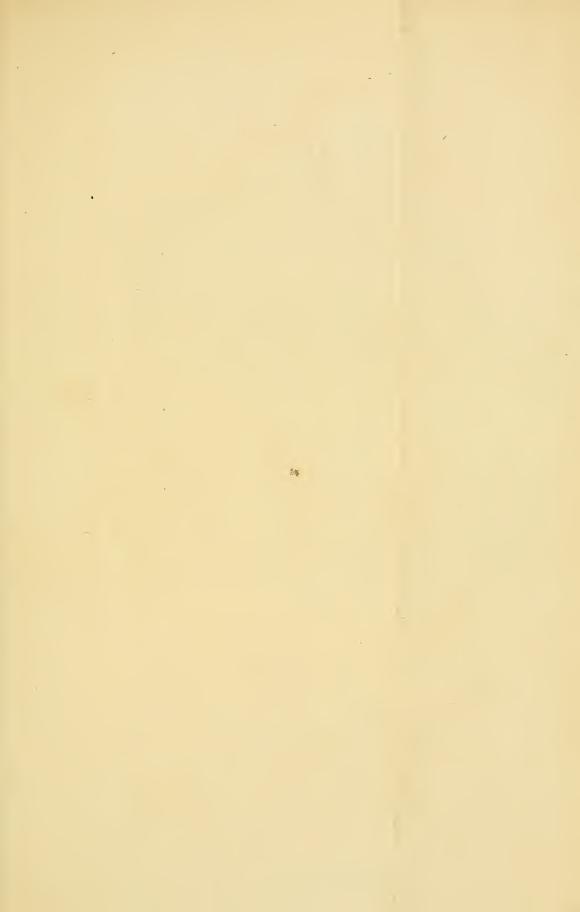
There is nothing so refreshing to the mind, on some occasions, as to seek for change of scene and revolution of thought, and not to dwell upon the past, but to swim in the Golden Horn that washes the shores of the ancient Byzantium—to dive into the transparent waters of the natural basin of Cleopatra, and to quaff the pure element of Kalephia and Synallaxis.

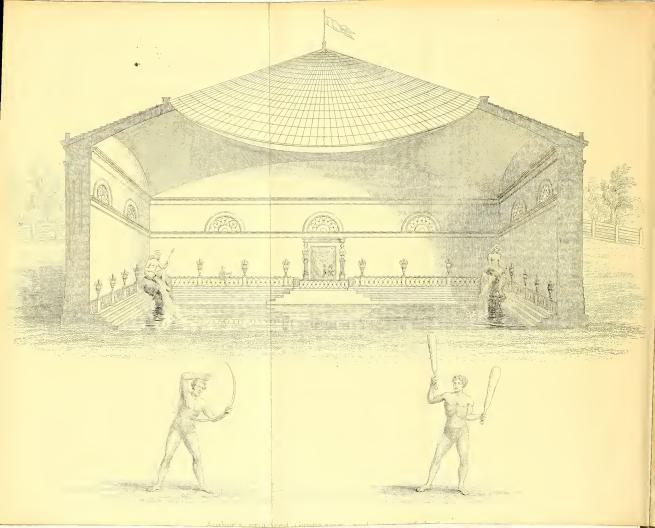
If there is anything in the following pages which may contribute to the entertainment of your leisure hours, or any hints for the restoration of the wasted energies of even one valuable member of our order, it will afford the highest gratification to your's,

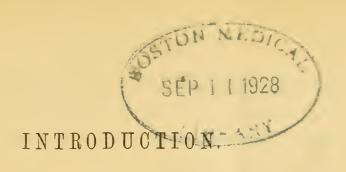
A FELLOW.

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CLASSIFICATION, &c.

THE salutary luxury of water was associated with the religion and mythology of the most ancient nations. The Greeks erected temples to the nymphs and deities of fountains. A temple near to Eraclea, a city in Greece, was placed at a fountain entering the river Cithero, which, according to Pausanias, was dedicated to four nymphs, whose names, in the metaphoric language of mythology, were significant of the healing virtues those waters were supposed to possess: -Purifying (Kalephia), to alter (Synallaxis) [the condition of the blood?], of perennial source or abundance (Pegaiate), and curative of maladies (Iasis).* The classic reader will perceive the idea in the annexed representation of a swimming bath and gymnasium, which I have designed as part of a system of training so efficacious in restoring lost tone to the system.

Natural mineral waters may be artificially imitated; but imitations are but imperfect specimens of human

^{*} θ' νόματα δὲ ὶδίαμὲν ὲχάςη τῶν Νυμφῶν Καλλιφάεια χαὶ Συνάλλαξις χαὶ Πηγαῖάτε χαὶ Ιἄσις.—εὐ χοινῶ δέσφισιν επίχλησιν Ιώνίδες. Δὄομένοις δὲ εὐ τῆ πηγῆ χαμάτων τέ ἐςι χαὶ ἀλγημάτων παντοίων ιἄματα.

ingenuity, because matter and time, the introduction of nigh pressure, of heat and electricity, are conditions which Nature alone, in her various modes, is able to dispose of on a grand scale.

The fatality, however, attending many good things in medicine is, that fashion and enthusiasm over-extol every new and favorite remedy; hence it enjoys but a short-lived reputation, to sink into neglect, or yield to some other system: and it is to be regretted that too many authors in Italy and elsewhere have attempted to represent their favorite fountains as the universal remedy—even those whose writings are justly appreciated as models of elegant composition.

I cannot better express my own sentiments on the subject of mineral baths than in the words of Assalini, one of the first operative surgeons of his day:—"It ought not to be considered," he remarks, "from what I advance, that I intend to make a panacea, as those infamous empirics do, without knowing what they are about. I, on the contrary—one to whom Italy, and even Europe, attributes some degree of merit in medicine and surgery, and who is warm in the cause of humanity, that excites me to be useful to my fellow-creatures, and accustomed to respect the new institutions of others, and to examine and prove by experience everything essential—can venture to affirm that I consider baths (of every variety and temperature) as a useful means or principle in medicine for those diseases pointed out, in conjunction with the

usual remedies that the art of medicine suggests to its professors."

Notwithstanding so much which has been written respecting the different shades of analysis in each of these fountains, I am of opinion that as baths the chief virtue of them all lies in their thermal properties.* That "bubbles" of gas "from the Brunnen of Nassau" will produce a headache, and in nervous subjects may occasion considerable excitement, I do not deny; neither do I doubt that the saline ingredients contained in mineral waters have a stimulating and revulsive effect on the skin; but that the absorption of those substances by the lymphatic vessels of the cutaneous surface into the circulating blood has any great share in the cure is doubtful. If a person remains an hour in the sea, or in a mineral fountain containing a trace of iodine or bromine, he may absorb an infinitessimal dose of those substances: the same of a natural ferruginous spring. Water, however, is absorbed, and it has been computed at the rate of 40 ounces in an hour. But the case is very different with respect to some of the mineral waters taken internally; there are a few of these the efficacy of which is undeniable, and as the most celebrated of them are exported from their sources in Florence flasks to all parts of Italy and other countries, they are available everywhere.

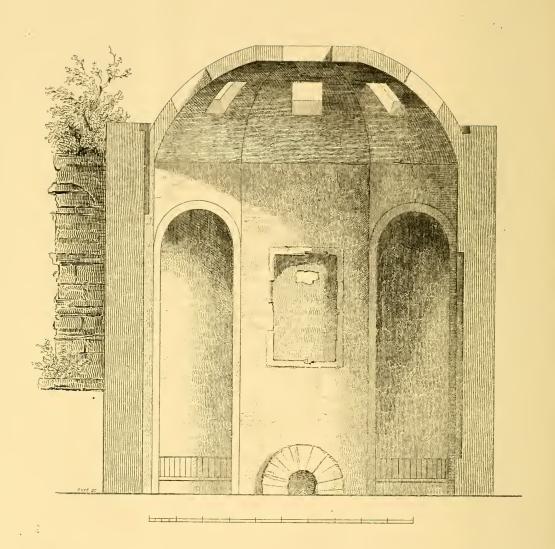
^{* &}quot;L'agente principale del'acqua termale è il calorico, il quale è uno degli stimoli necessari alla vita, che può dire fisicamente chiamarsi l'anima della natura organizata."—Il Appolloni.

In some of the thermæ, a draught of the waters is little else than a nauseous dose of Glauber's salts or of sea water, which quaffed by some plebeian lips will answer all the purposes of an ordinary aperient, and save the expense of the apothecary.

With regard to the thermæ themselves, many of them are excellent, as I can testify from having visited and examined those which are the most celebrated. Some are preferable for their superior accommodation, others for the coolness of the climate where they are situated as a summer residence, others in the spring and autumn, and even occasionally, with proper precautions, all the year round. Apart, however, from the numerous auxiliaries which conduce to the restoration of health in all watering places, I do not think, as far as the bathing part of the question is concerned, that any great preference is to be given to one thermal establishment in particular.

In Italy, but especially in Tuscany, there is an abundance of thermo-mineral springs, which for ages have poured forth their limpid waters, and continue to distribute them with a uniformity of temperature and composition, perhaps as unchangeable as the mountains and the hills from whence they emerge. The origin of their peculiar caloric remains however as much a matter of conjecture as ever. They are generally believed to be owing to the agency of subterranean fire, and their production is plausibly traced to the same origin as that of volcanoes, earthquakes, and great geological revolutions.



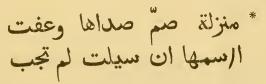


Nero's bath.

"Fountain of health, the poet's honour'd theme,
Say where thy fervid waters flow;
Rush they in subterranean stream,
From whence sulphureous tides in Ætna glow;
Or fraught with healing elements ascend,
Sent where the Stygian god, in soften'd mind,
Had bid his fires their genial influence lend,
In mercy to mankind?"

Lord Alvanley's Translation of "Lobkowitz."

It would not appear that natural hot mineral waters were so much in vogue amongst the ancients as artificial thermæ. The latter, however, abounded, and we still behold in Italy the ruins of Roman magnificence in their public thermæ. They carried the luxurious indulgence not only to excess, but even to the disregard of morals and decorum, until the reign of BARBARIAN TERROR swept away all but their remembrance. There is a place of this description at Pisa, the ruin of an ancient Roman bath, called the Emperor Nero's, which reminds one in its present condition of the Arabian poet's description of a "deserted hall," with the Laconicum and Sudatorium, a sketch of which is given. It is of octangular form with four niches, the arches of which are exceedingly well formed. The building



"An edifice, whose echo is dumb;
The vestiges, if you ask, it will not answer.

very much resembles an Egyptian or a Turkish "hummam."*

The Arabian and Turkish bath is to be traced, perhaps, even to the most remote periods of oriental grandeur; to the Assyrians, Babylonians, Medes and Persians, not to mention the religious ritual of ablution, which all the Mahomedans in common derived from the Jewish Lawgiver.

Thermo-mineral waters, however, were not unknown to the ancients as therapeutic agents. The Italians appear to have been the first after the dark ages in reviving the usage. Where Nature has so bountifully poured forth her thermal fountains, the modern hygican temples were erected, and as

"Hic fontes natura novos emisit,"

so in the country where the "Æs thermarum" had so long been silent, its sound was once more heard.

In the present era much of the public attention has been directed to this valuable branch of Hygiène, so that, amongst other sanitory measures, the establishment of wash-houses and baths for the poor, to the great improvement of public health, in all the larger towns of England, is one of the many instances of the philanthropy of the age.†

^{*} Hence, I suppose, the name of the "hummums" in Covent Garden, a corruption of the Arabic word



† It is gratifying to observe similar measures adopted in Paris. In a former pamphlet I recommended a plan for the establishment of wash-

Hydropathy, which in the hands of the enthusiast is too often indiscriminately vaunted as an almost universal panacea, has not been without some benign influence in attracting more general attention to the *judicious* employment of so powerful an agent as pure water.

It is not my intention to cry up mineral waters to the exclusion of numerous other valuable means in the treatment of disease, but I conceive it to be the duty of the physician to cure disease not only by physic, but by all the means in his power; and, very frequently, the more simple those means the more deserving are they of his consideration. Neither do I purpose to notice every thermo-mineral establishment, but shall confine my observations to a description of the thermæ of Lucca, Monte-Catini, and Pisa, not only on account of their being the most celebrated, but for the great accommodation which they afford to the invalid.* I shall also introduce the subject of sea-bathing on the Italian shores of the Mediterranean, of which there are some good establishments at Naples, Leghorn, Via-Reggio, Spezia (1) and elsewhere, with hot baths, douches,

houses, baths, and a supply of wholesomely cooked food for the poor at the cheapest possible rate, all combined in one economic apparatus. If His Imperial and Royal Highness Leopold were to have one of these establishments at Leghorn, we should not see so many sore eyes in the the poor—chronic inflammation of the lids.

* The kingdom of Naples is perhaps as rich in thermo-mineral springs, but the enlightened and philanthropic spirit of a Leopold the First has not crected a temple to receive the sufferers, who would otherwise resort to the pools of Bethesda.

and every other convenience, and which possess many of the advantages of natural thermal waters, besides being of peculiar efficacy in certain maladies, and at certain seasons of the year.

The mineral waters for *drinking* which I propose to notice are those of Tettuccio, Tamarici and Torretta from Monte-Catini, and the acqua acidula di Asciano, which are obtainable everywhere, and which I think deserve the preference for drinking at all the thermæ.

The practical observations and a few illustrative cases which I shall adduce, may be considered as applicable to the *whole of the Thermæ* in connexion with the waters above-mentioned, as recommended for many chronic diseases.

The following may be considered as the type of each class of the thermo-mineral waters of Tuscany.

In the *first* class we find the carbonates and sulphates of lime and magnesia, sulphate of soda, the chlorate of soda and magnesia, with traces of silica, iron, manganese, and alumen; also free carbonic acid gas, in quantities more or less considerable. Such is the character of the baths of Lucca, and of San Giuliano, near Pisa.

A second class, in addition to many of the above saline ingredients, contain compounds of iodine and bromine. They are much resorted to for the cure of liver complaints, dysentery, scrofula, and many other disorders. The baths of Monte-Catini, and sea-water baths, are the most noted of this class.

In a *third* class, sulphureted hydrogen abounds, as in the *acqua puzzolenta* in the neighbourhood of Leghorn, the virtues of which have been extolled for some forms of cutaneous disorder.

Lastly, we have the acidulous waters, wherein a very large quantity of carbonic acid gas prevails, and which waters are celebrated as a beverage in calculous diseases, and in catarrhal conditions of the mucous coat of the urinary organs—as in the acqua acidula di Asciano.

It has been observed by a somewhat enthusiastic admirer of mineral waters,* "that bountiful Providence has not placed a single natural agent within our reach which is not possessed of some property calculated to benefit us. The vegetable and mineral world sufficiently testify to that. Next after them, in degree of general diffusion throughout the universe, come the natural waters, bubbling or boiling out of the earth's bosom, charged with many of the principles which belong to the mineral world, and a few which belong to the vegetable world also." It is quite clear that these waters were not bidden to flow in vain.

In an ably written article on mineral waters generally, in the "Cyclopædia of Practical Medicine," it is shown, that in one spring alone, the Sprudal of Carlsbad, no less than 376,250,000,000 grains of mineral agents are thrown out of the bowels of the earth daily; what must the quantity, therefore, amount to in the abundance of these fountains existing throughout the globe?

^{*} Dr. Granville.

THE MEDICINAL PROPERTIES OF MINERAL WATERS.

The action of these waters on the animal economy, when taken internally, is alterative; that is, they change the character and composition of the fluids of the human frame; and secondarily, they effect an alteration of the solids.

Mineral waters act likewise as solvents, and may therefore be considered as "resolvents." The latter is a necessary consequence of their alterative action; for, after producing a change in the body, it must very often be necessary to separate, detach, and resolve the matter resulting from that change. Thus, many congestions of the liver, lymphatic glands, uterus, and other organs are removed, and the blood is liberated from its acrid parts, which are thrown off on the extremities, or by the surface of the body (a mild attack of gout being in some cases the consequence, the person remaining free from subsequent attacks for a long period). They are also the means of clearing the urinary passages from stone or gravel, where their dimensions will admit of their exit per vias naturales without an operation, as well as of changing the disposition of the system to deposit such concretions. Some of the substances would seem likewise to have a specific effect on certain maladies, from the iodine and bromine found in them. This will be further alluded to when treating of the effects of the Tettuccio waters, and some of the other sources of Monte-Catini.

MORBID CONDITIONS OF THE SYSTEM FOR WHICH BATHS AND MINERAL WATERS ARE BENEFICIAL, AND THEIR MODE OF ACTION.

"Quæ profuerunt ob rectum usum profuerunt; quæ nocuerunt ob id quod recte usurpatæ sunt, nocuerunt."—Hippocrates.

It is now generally admitted by Physicians that the solid parts of the body are not the primary agents of life, but on the contrary, that the blood and the nerves are the primitive and essential instruments of all the organic functions. The blood itself is continually undergoing change—the elements of disease, or the morbid predispositions, may be reduced to vitiated states of the blood, the lymph, or to derangements of the nervous system. The circumstances which most militate against a healthy state of the blood, and a sound and harmonious tone of the nervous system are indolence, luxury, dissipation, excess in eating and drinking, the abuse of spirituous liquors, smoking tobacco, irregularity in the time of taking meals and rest, improper or unwholesome food, malaria, and the neglect of habitual cleanliness or bathing.

"It is not immediately or even for many years, that the depraved state of the fluid causes any particular inconvenience to the individual which might warn him of the approaching evil. He still finds himself tolerably well, although the blood from time becomes more vitiated, till at length the corruption of the juices arrives imper-

ceptibly at such a degree that it produces morbid conditions of the solid parts, and now the individual will not fail to experience the effects, as the acridity stimulates the sensible and already weakened vessels to increased activity, and the tenacious blood is no longer able to penetrate the finer kinds of vessels, whence arise obstructions, which take place principally in the abdominal viscera, and from neglect often increase."* In this way glandular enlargements, the development of tubercular disease, † gout, rheumatism, cataract, stone, and many other ills "which flesh is heir to," are occasioned. The alterative and deobstruent effects of mineral waters are often the means of changing these morbid conditions, aided by climate, regimen, &c. This alterative effect is developed in different individuals in various ways. In some persons the action of mineral waters is more manifest on the skin, in others on the urinary organs, in another on the alimentary canal and the secretion of the liver, in some by an abundant expectoration. This general and local excitement was termed by the ancients the Febris medicatrix.

* Dr. Beecher.

[†] Hereditary tubercular disease is only developed under circumstances which impair the general health.

AUXILIARIES TO BATHS AND WATERING-PLACES—GYMNASTIC EXERCISES.

In a high degree of civilization and luxury, in the turmoil of a busy city, people cannot, or will not, submit to a systematic discipline of Hygiène, which they are somewhat obliged to undergo at spas and watering-places, or at an hydropathic establishment (and it cannot be denied that, under the direction of really scientific men, in the latter places, there is the application of a powerful element in nature, and all the concomitants for restoring health). For this reason, also, artificial mineral waters are not so beneficial when used by patients who never quit their homes. Many do recover in the same manner as they do under the prescriptions of an experienced and skilful practitioner, but this is not the argument; the simple question is, what is the most effectual mode of curing or relieving chronic diseases when patients do not find themselves improving at home? There is a story told of the celebrated Abernethy, who was consulted for an intractable ulcer of the chest, leading down to a diseased bone (a sinuous ulcer, with caries, as it is termed). Abernethy simply recommended his patient to syringe or to pump water into the sore, and advised him to go into the country. The patient, it is said, "turned away in a rage," but called shortly afterwards to thank Abernethy for the cure.

The auxiliaries may be enumerated as follows:—A journey, change of scene, the breaking of some spell or chain of habits, the resolution of an invalid to place himself under some system, regular exercise, wholesome but moderate diet, abstinence from over-stimulating food and drink, a superior climate to that in which the individual has been accustomed to live, the rational amusements of society, and freedom from the cares of business or the anxieties of public life.* To the statesman, the merchant, or the votaries of pleasure and dissipation, such resources are worth a thousand prescriptions, for they may thus be said to be committing themselves into the hands of medicated nature, assisted by all the auxiliaries which can possibly contribute to insure recovery, in a mild and sulubrious climate on the shores of Italy. With the aid of gymnastic exercises, rides, and excursions by land or sea, there are few persons out of health who will not recover their wonted energies.—Many diseases will be prevented, and many others will be cured.

Gymnastic exercises.—There is nothing more calculated to preserve the health, contribute to the tone, and develope the growth and symmetry of the body than Gymnastic exercises, as formerly practiced by the ancients, and still kept up with great spirit in India and Persia, in connexion with swimming baths at the sea side. Such a system is admirably adapted for young men whose health

^{*} The genial influence of the season of spring and summer, when all nature revives, is to be taken into the account.

has become impaired by irregular habits, mental fatigue, and other causes; and would go far to prevent the formation of tubercles in the lungs in families where such an hereditary taint has been manifested. These exercises are highly beneficial in many morbid tendencies and malformations. "A high degree of training," says Hippocrates, "is dangerous;" but not so moderate training.

The Indian Calisthenic exercises consist principally of the "mogdurs" or clubs, then the bow chain or "lezum," and lastly wrestling. The Sipahis are very expert, and some of the athletes are exceedingly fine men. In my own troopers of the Guard we had some very splendid specimens of athletes.* All these exercises can be practiced at Spezia. Il Signor Giuseppe is constructing a plunge bath some distance out in the sea, with a covered platform for gymnastic exercises, and the clubs, &c., are already prepared for those who wish to avail themselves of them.

RULES FOR THE USE OF MINERAL WATERS—HOUR OF THE DAY, SEASON OF THE YEAR, DURATION, &c.

"Felix qui alta caligine mersas pandit, et volvit tenuissima vincula rerum."—Anon.

Dangerous consequences have been known to arise from the use of mineral waters, where improperly prescribed,

^{*} I should like to see a squadron of these black Dragoons attached to the escort of Her Majesty, in their richly embroidered huzzar uniform. They would not refuse to serve in England I'll answer for it.

without previous enquiry into the peculiarities of individual cases, and also from invalids acting on their own responsibility, or on the advice of other sufferers, who, from not being professional persons, are incompetent to investigate these individual peculiarities. Of this misapplication, numerous instances are every year witnessed. Such persons—whether acting from a want of confidence in their medical advisers, or from a mistaken supposition that if mineral springs do no good, they cannot do harm, or from a misplaced economy—frequently do their health great injury. It is essential, therefore, that each invalid should provide himself with a brief and clearly written statement of his case, and take the earliest opportunity of consulting that physician of the place whom he may prefer. On his arrival, he should allow himself to repose after the fatigues of the journey.

The best time for drinking the waters is early in the morning. The heat is then not so oppressive, and the body and mind are refreshed by sleep; the stomach is also empty. This rule applies also to bathing. But some persons cannot leave their bed at an early hour, owing to the nature of their disorder. Such patients should drink the water in bed, under proper restrictions which are best learnt on the spot. Gentle exercise between each glass of water is necessary, which may last for about a quarter of an hour. But patients who are not accustomed to walking exercise, should not force themselves to follow the above rule, for fatigue is the very

worst concomitant of water drinking. It is best to commence with half a tumbler at a draught, and to proceed for the first two or three days as far as three or four glasses. At the expiration of a week the quantity may be increased.

Most of the natural waters contain a quantity of free carbonic acid gas. Some patients cannot bear the action of this gas on their nerves if the quantity be considerable. They become giddy, flush a good deal, have a congestion of blood in the head, and feel altogether uncomfortable, especially if they be inclined to apoplexy or plethora.

Such patients should drink each glass of the mineral water not at a single draught, but in divided portions, and wait a few minutes to allow time for the escape of the gas. On the other hand, there are invalids who find the gas beneficial to them. In that case they should drink the water without waiting long; drinking that which is in the upper part of the glass, and which contains most gas, and throwing away the rest-repeating this every six or eight minutes.* The ascending douche will not only very much aid the operation of the water, but is an excellent emollient, especially in cases of disease of the pelvic viscera, irritation of the bladder, habitual constipation, uterine affections, &c. There are always these available of both descriptions, besides the various "doccie" for external use to any particular part to which it may be desirable to apply this local bath.

[•] Dr. Granville.

Season of the Year.—Spring commencing in this climate early, the weather will generally be sufficiently mild for patients to commence bathing at Pisa in April, which can be continued through May. Should the weather be at all unfavourable, a close carriage is always available. I should not recommend the generality of patients from more northern climates, to frequent the Baths of Pisa after the month of June, the weather at that time being too oppressive for natives of colder climates. That season is best passed in the cooler locality of the Baths of Lucca, the Simla or mountain retreat of this part of Italy.

The bathing season at Lucca is in June, July, and August; at Monte Catini, in July and August. The baths of San Guiliano, however, are again available in the end of September, and may be continued throughout October and a part of November if the weather continues fine. How long each patient should remain in the bath, how often he should repeat it, and when he shall discontinue its use, altogether depend so much on the peculiarities of each individual case, and on the habits and constitution of the invalid, that no fixed rules can be given; these will depend on the opinion of the medical attendant. There are three Italian medical officers attached to the establishment of Pisa, in whose extensive local experience every confidence can be placed. Dr. Appoloni, the chief physician, understands English perfectly, and has translated "Travers on Diseases of the Eye," and

other standard English medical works; and is about translating my own publication on "Elephantiases." A person in health may safely remain in the bath of 98° to 100° Fahrenheit (30\frac{3}{4}\circ Reaumur) from 15 to 30 minutes, and repeat it every alternate day for a month. The same rule applies to invalids whose constitution may be naturally robust; but in delicate people a bath of the above temperature cannot be used so long, or repeated so often, without occasioning debility. It will generally be necessary to take a mild aperient previous to commencing a course of the baths.

The patient should enter the bath in a state of moral and physical calm, and should guard against exposure to cold and damp afterwards. It is scarcely necessary to observe that the bath should not be used soon after a full meal, and that although the morning is the best time, for those who are not early risers there is no objection to their postponing their bathing until noon. Pelham says he used to take his breakfast and read the daily paper in the bath; and so did many of the ancient Romans eat in the bath. Pliny and Augustus composed and wrote in the bath; but these luxurious habits are not medically orthodox, unless it is desirable to reduce spasms by causing relaxation. It is decidedly debilitating to remain too long in the water.

Thermo-mineral baths are injurious in sanguineous apoplexy, in all internal suppurations — therefore, in

pulmonary consumption of the third degree—as also in persons of a nervous and irritable temperament, in hectic fever, and, in fact, in all cases where it would be dangerous to increase the activity of the circulation.

DIET AND REGIMEN.

"Plus nocent, quam prosint Thermæ, nisi rectæ diætæ ratiis in iis observetur."

It must be recollected that these observations apply to chronic disease; that is the character of the maladies for which the baths are resorted to. I shall take tubercular consumption in its earlier stages, with scrofula, as the type of these diseases: first, because a great number of people from all quarters visit Italy—and especially Nice, Pisa, and other southern climes—with pulmonary diseases of all kinds, asthma, bronchitis, &c.; and secondly, because the same regimen applies to very many other chronic maladies; and lastly, because the articles of diet here recommended are, with very few exceptions, precisely what are recommended to invalids at all the mineral watering places of Germany, and other parts of Europe. The hours here advised for taking meals are likewise in conformity with the regulations of those establishments.

Food of wholesome quality being submitted to the process of mastication and to the action of the salivary

fluid, is received into the stomach in successive morsels, and excites the muscular coat of that receptacle to contraction, stimulating the vessels to the secretion of the gastric juice. When it has been submitted for some time to the action of that fluid, it passes into the duodenum, where it undergoes a further digestive process from the bile. The result is the production of chyle, which fluid is eagerly absorbed and carried by the lacteal vessels to the heart, and into the torrent of the circulation. All these processes in the act of digestion partake of the nature of mechanical, chemical, and vital actions.* Good, easily digestible, moderately stimulating, and varied diet, is convertible into wholesome blood. This vital fluid, after being circulated into every atomic periphery of the vascular capillary system, supplying new materials to renew the organised tissues of this elaborate machinery, so "fearfully and wonderfully made," becomes impure blood. Some of its constituents must be got rid of. Nature has her emunctories from whence the waste materials must be excreted; now these organs are the lungs, the liver, the kidneys, and the skin. The functions of one of these organs "out of tune, and harsh," and the whole economy suffers. "It is impossible," says Dr. Cook, in a well-

^{*} Dr. W. Hunter in his lectures used to observe—"Some say, gentleman, that the stomach is a mill; others, a fermenting vat; others, a stew-pan: but my opinion is, that it is neither a mill, a fermenting vat, or a stew-pan, but a stomach, gentleman, a stomach."

written apercû on Consumption, "to suppose that the blood which is in this manner constantly undergoing change, should be exempt from morbid alterations of quality. The symptoms which these alterations excite are, in our ignorance of their essential nature, referred to the organs in which they are principally manifested; and in this manner changes of the fluids have been neglected, and all diseases improperly referred to the solids.*"

It is usual to lay too much stress on hereditary disease —consumption, for instance. It is true that we resemble our parents in outward form and internal structure, as we do in many faculties, which is called hereditary organisation; but it does not follow therefore that an individual who inherits this organisation shall become scrofulous or gouty because his ancestors were so, any more than he should inherit certain mental deformities, which, by a better education and moral training, may never be developed. Avoid those exciting causes, which by deranging the general health and the healthy condition of the blood, develope hereditary disease, and you will not have it; and in a second or third generation the entire hereditary taint will become extinct. There cannot be a more striking illustration of this than the following facts:-1st. Coster exposed rabbits to the ordinary causes of

^{*} Cook on Consumption—late resident physician at Pisa, now, I believe, settled in Cheltenham, and succeeded by Dr. Gason, a well-educated physician, and amiable man.

tubercular deposition, by keeping them in a dark, damp, cold, confined cellar, feeding them with green watery food. At the end of five months they were killed, and their lungs, liver, and spleen were found to be studded with tubercles. Other rabbits were similarly confined and fed, but with the addition of a pound of bread daily, containing fifteen grains of carbonate of iron. These were likewise killed at the expiration of five months, and were found perfectly healthy and free from all traces of tubercular deposit. 2nd. When in the upper provinces of India, I was called to the harem of the King of Delhi, and many other harems of the higher classes. These descendants of the Moghul Emperors have their wives from Cashmere, Afghanistan, and Upper India, of healthy organisation, but scrofula in all its forms soon breaks out in their progeny from confinement, indolence, luxurious habits, and exclusion from the pure air and light in confined enclosures.

The blood of the consumptive being deficient in vitality, their food should be of such a quality, and taken in such a quantity, as to compensate for the deficiency. This end is most readily obtained by the lighter and more digestible kinds of animal nutriment, while the drink should be moderately stimulating, so as to afford some assistance to the stomach during the process of digestion. Milk, from its requiring little but gastric exertion for its conversion into chyle, forms, with good bread, a very suitable breakfast or supper; but as there are many

stomachs for which it is too heavy, a cup of chocolate, cocoa, or a basinful of well prepared minestra cordiale, and a slice of cold fowl or broiled bacon, will in these cases, be preferable. After a breakfast of this kind, the patient will be able to take exercise either on foot or horse-back, without experiencing those sensations of weakness and exhaustion which follow a slighter morning's repast. At twelve, a cup of beef-tea, or a sandwich, and a glass of Amontillado sherry should be taken, or old Madeira, followed by a walk or drive. The morning is the most favourable for active exercise, as there generally is a feverish tendency in the afternoon, which any but passive exercise would increase. Dinner should be taken early, and should consist of mutton, game, or poultry, with rice or egg-pudding. The less admixture in the food, and the more slowly and perfectly it is masticated, the sooner will its solution in the stomach, and its conversion into chyme be effected. Bread should be taken with the meat, all vegetables being forbidden, which, besides containing a large quantity of water and very little nutritive matter in proportion to their bulk, are very apt to run into ferment in the stomach, causing pain, heartburn, and flatulence. Professor Liebig has shown that gelatine, although when given by itself cannot support life, from its incapacity of forming blood, yet that when mixed in proper proportions with other food, is very nutritious, being dissolved in the stomach and con-

veyed by the blood to all parts of the body, where it acts as a nutriment to the gelatinous tissues. From this explanation it would appear "that this substance forms a good article of diet, and one well adapted for invalids, since it spares the energies of the digestive system by allowing it to convert the alimentary substances into blood, in place of expending its powers in the formation of gelatine requisite for the support of those tissues which are principally composed of this substance."* white kinds of fish-haddocks, cod, soles, whiting, and turbot-form, if boiled, a nutritious and easily-digested food: this is not, however, the case with salmon, which, with all fried fish, rich sauces, and pastry, should be Mild ale, sherry and water, or porter may be allowed with dinner, or if these prove too exciting, a glass of Rhenish wine, or of pale ale, may be substituted for them. After dinner the patient should sleep, or at least recline on the sofa for an hour or two, and abstain from all exertion until six or seven, when a cup of black tea or chocolate, and a slice of toast, may be taken; at nine, a light supper of bread and milk, rice milk, sago, or arrow-root, or if these be not relished, a sandwich and a glass of porter, which often acts as a gentle narcotic, and the patient enjoys a night of sound and refreshing sleep. The admixture of condiments and aromatics with the food is both natural and salutary, and there is no

doubt that these, as well as a moderate quantity of alcoholic liquors, in the form of sound old wines, assist digestion, especially in the infirm. The Vermuth of Florence, when good, is also an excellent table wine.

MEDICINAL PROPERTIES OF THE WATERS OF TETTUCCIO, TORRETTO, AND TAMARICI.

These waters are derived from the mineral springs in the Campo-minerale of Monte-Catini, and are exported to all parts of Italy. In addition to the saline materials usually found in mineral springs, they contain traces of iodine and bromine. The following is the analysis:—

TETTUCCIO.

| Temp. | 22 | Reaumur | (82 | Fahrenheit) | in | 100 | ounces | of |
|--------|----|---------|-----|-------------|----|-----|--------|----|
| water. | | | | | | | | |

| water. | | | | | | | | | | | |
|---------------------|---|---|---|-----|-----|-----|----------------|------|---|---------|---------------|
| | | | | | | | | | | | Cubic inches. |
| Carbonic acid gas | | • | | • | | | • | • | • | | 5.06 |
| Oxygen | | • | • | | | • | | | | • | 0.72 |
| Azote | | | | | | | | | | | 1.44 |
| | | | | | | | | | | | |
| | | | | Tot | tal | • | | | | • | 7.22 |
| | | | | | | | | | | | |
| | | | | | | | Gra | ins. | I | n 10 | 000 parts. |
| Hydriodate of Potas | • | | • | • | | | $1\frac{1}{4}$ | | C | 0.02170 | |
| Hydrochlorate of So | | | | | • | 310 | 6 | | 5 | .48611 | |

of Lime . . .

,,

16

| Hydrochlorate of Magnesia | 12 — 0.20833 |
|---------------------------|------------------------------|
| Sulphate of Magnesia | 20 — 0:34722 |
| ,, of Soda | 4 — 0.06944 |
| " of Lime | 21 — 0.36457 |
| Carbonate of Lime | 14 — 0.24303 |
| ,, of Magnesia | 1 — 0.01735 |
| _ | |
| 3 | $405\frac{1}{4}$ — 7.03379 |
| - | |
| TORRETTA. | |
| In 100 ounces of wa | ter. |
| | Cubic inches. |
| Carbonic acid gas | 0.60 |
| Oxygen gas | 0.06 |
| Azote | 0.80 |
| | |
| | 0.80 |
| | |
| 70 1 1 | Grains. In 1000 parts. |
| Bromhydrate of Magnesia | 3 |
| Chlorhydrate of Potash | |
| ,, of Lime | 50 — 0.86805 |
| " of Magnesia | 20 — 0.34722 |
| Sulphate of Lime | $12\frac{2}{3}$ — 0.21954 |
| " of Magnesia | |
| " of Soda | |
| Carbonate of Lime | 22 — 0·38194 |
| | |
| Total | $914\frac{1}{3} - 15.68943$ |
| | |

TAMARICI.

In 1000 Volumes of Water.

| Carbonic Acid Gas . | | | • | | • | • | • | Cubic Inches. 41,303 |
|-----------------------|-----|------|------|------|-----------------|-----|---|----------------------|
| In 1000 | P | art | s oj | f II | ⁷ at | er. | | |
| Hydrochlorate of Soda | | • | | | | | | 10.01146 |
| ,, of Lime | | | • | | | | • | 0.10872 |
| ,, of Magne | sia | | • | | • | | | 0.13216 |
| Sulphate of Magnesia | • | | | | | | | 0.37240 |
| " of Lime | • | | | | • | | | 1.02539 |
| Carbonate of Lime | • | • | | | | | • | 0.32552 |
| ,, of Magnesia | • | • | | | | | | 0.13021 |
| Pseudo-organic Matter | • | | | | | • | | 0.00977 |
| Silex | | | • | | | • | | 0.00520 |
| Pure Water | | • | • | | ٠ | • | | 986-97917 |
| | T | `ota | .]* | • | | | • | 1,000.00000 |

These waters bear a great resemblance to those of Cheltenham. Their composition, it will also be perceived, is very analogous to that of sea water.

The compounds of iodine and bromine impart to them their alterative and deobstruent properties; and when associated with the external use of mineral baths or of sea water, hot, tepid, or cold, according to the condition of the patient, are of singular efficacy

[•] See the works of Giuli, Malluccelli, Barzellotti, and Dr. Maunoir, son of the celebrated Oculist of Geneva.

in various chronic disorders—in liver complaints—spleen — dysentery — scrofula — jaundice—ague—biliary calculi—gastritis—diseases of the urinary and generative organs—urinary calculi and gravel—rheumatism—skin diseases—palsy—hysteria and other nervous affections; and, under proper management, in some cases of chronic bronchitis and incipient consumption.

According to the latest physiological experiments, the salts of soda and potash are those that pass with the greatest facility into the torrent of the circulation, and penetrate most readily the tissues of our organs. One of the conditions the most favourable for their absorption and transmission into the mass of blood, is the greater degree of attenuation in which these salts are administered in mineral waters.—When, on the contrary, they are taken in a more concentrated form, they are speedily expelled, without having time to produce their chemicovital effects, or else they accumulate along the parieties of the digestive tube, and alter its tonicity, attracting a superabundance of fluids by which they are carried away, but not without having occasioned a useless waste of materials essential to the economy.

The water of Tettuccio when taken in considerable quantity (12 tumblers or more) produces but a slight effect either aperient or by urine, whence it may be concluded that a great portion of it enters the torrent of the circulation. This chemico-vital action which it exercises on the economy, and above all on the fluids,

is not manifest until after a certain time, whether it be taken in abundant or in moderate doses, and has been appropriately termed depurative by authors, inasmuch as if the water of Tetuccio does not change the qualities of the humours in general "elle a au moins l'effet de modifier d'une manière salutaire la généralité des sécrétions, en améliorant la condition du sang. (*)" Redi, who has termed it the deobstruent remedy, par excellence, says "daily experience has demonstrated that the water of Tettuccio acts on the hepatic vessels, the orifices of the capillaries of the intestinal tube, and the cystic and choledic ducts." My own experience in Italy has fully corroborated the accuracy of this assertion in numerous instances.

"The water of Tettuccio," says Malluccelli, "is totally different from that of ordinary saline purgatives, the action of which is attended with more or less pain.

—On the contrary, when the Tettuccio does act on the bowels it produces no pain, and rarely occasions excessive or superfluous evacuations; imparts tone to the digestive organs, and augmentation of the appetite, re-establishing an equilibrium of the vital movements of the economy in general."

The aperient effect of the Tettuccio on the alimentary canal must be considered as only secondary and indirect—the first evacuation is only a simple defecation deter-

^{*} Maunior.

mined mechanically by the mass of liquid ingested; which is followed subsequently by a copious flow of cystic and hepatic bile.

The waters of Torretta and Tamarici differ but little from the Tettuccio, excepting in the quantity of their saline ingredients. In 12 ounces of each the proportions are as follows:—

| Torretta | • | | | • | • | • | Grains | 108 |
|-----------|---|--|---|---|---|---|--------|-----|
| Tamarici | | | • | | | | " | 81 |
| Tettuccio | | | | | | | 9.9 | 48 |

They are used as mild and grateful aperients, and are free from any disagreeable taste, the Torretta being the strongest, and the Tamarici forming an intermediate between the two others. The operation of both is without pain. It is usual to commence a course of treatment with a few doses of the one or the other, according to circumstances.

Note (1)

Respecting the Gulph of Spezia, alluded to at page 7, an esteemed friend, who has recently travelled all over Italy, writes to me as follows:—

"The steamboat from Genoa makes almost daily excursions to Spezia, and returns in the evening—all for a mere trifle. This little trip I consider one of the most agreeable in the wide Mediterranean, whilst to any English family residing at Spezia for the benefit of sea-bathing, it is very convenient to have this rapid and constant communication with the Marble City (Genoa) by sea, as the mountainous road over the Braccha is very slow and fatiguing, as well as expensive.

32 NOTES.

"Nothing can be more tranquil and magnificent than the spacious Gulph of Spezia. In the glowing words of Sir Bulwer Lytton, it may be said to be 'crowded with a thousand reminiscences of glory;' whilst the villas of Byron and Keats at Lerici, on the eastern shore, and the quarries of red marble on the western point, inside the little island of Porte Venere, present a bold and striking entrance to this noble opening. By the bye, what has become of the town and harbour of Luni, a few miles to the east from Lerici? Naturalists take no notice of this phenomenon of a perished city, any more than they notice the red pottery vessels excavated by Capt. James from the solid Tufa Rock in the Val di Cecina, which geologists in the neighbourhood estimate as 5000 years old, at least."

It is perhaps not generally known that the Italians at Genoa are trained to swimming from their infancy in the deep water of the spacious harbour, and I was much pleased to observe the healthy and well-developed forms of the numerous children of our British consul.—The youngest of them, a girl not four years of age, leaps fearless from the boat's side into the deep blue sea. The boats or gondolas are well adapted for the purpose—a ladder is hooked on to the side of the boat, and has a capital awning, which closes in all round. The same is the case at Spezia.







THE BATHS OF LUCCA.

PART I.—INTRODUCTION, HISTORY, AND TOPOGRAPHY.

Whoever has perused the history of Gil Blas de Santillane, will remember his "aimable solitude" of the Château de Lyra, which he received as a testimony of gratitude from Don Alphonso and his beloved Seraphine. The valley of the baths reminded me very much of the description of his sylvan retreat.

Transported suddenly from the monotony of plains or the artificial life of cities, to wander through its peaceful vallies, retired walks, and romantic scenery, is calculated, in the flowery language of an oriental writer, "to dispel from the mind the wild democracy of passion, and to establish a perfect aristocracy of reason and virtue," at all events to favour the cultivation of calm reflection in the admiration of nature—

"The birds their choir apply; airs, vernal airs, Breathing the smell of field and grove, Attune the trembling leaves."

Milton's Paradise Lost-Book IV.

In all watering places it is the different association—a spell of nature's own peculiar influence—that produces so great a change in our physical condition: the reaction of the mind on the body. There is, perhaps, in mountainous countries some modified influence from the solar rays,

electricity, and various other meteoric phenomena, both in the air and in the rushing torrents of water, which, doubtless, has some share among the auxiliaries to the improvement of health.

"Si le voyageur, le convalescent, ou le malade," says the Chevalier Mondat, "éprouve le besoin pressant d'emotions douces et sympatiques, qu'il se dirige sur cette contrée, parmi les richesses champêtres, ou la nature s'est plue à les verser abondamment: toute sa majeste s'y montre en grand, soit sur les flancs d'imposantes montagnes boisées et d'un aspect varié, soit sur les collines rangées en festons, parsemées de Villes, entourées de bois touffus et serrés, ou de fraîches vallées traversées de hameaux, de champs cultivés, et de jardins potagers. A travers tous ces objets, coulent des rivières, des torrents, des cascades d'eau bouillante, sur des rochers converts de mousse épaisse. Ceux qui aiment à mediter sur le charme puissant de riant ou de majestueux tableaux, qu'ils viennent habiter ces lieux, qui présentent des ombrages odoriférants, des tapis de verdure au sein desquels naît à chaque pas une source pure. Ils fournissent aussi de salutaires remèdes pour le rétablissement des imaginations malades comme pour l'altération des tissus organiques."

"There can be no farewell to scenes like thine,
The mind is colour'd by thy every hue;
And if reluctantly the eyes resign
Their cherish'd gaze upon thee,
'Tis with the thankful glance of parting praise."—Byron.

Some Roman soldiers are said to have been the first to discover the mineral sources which have given to this valley its celebrity. A colony was in consequence established on the spots where the Ponte a Seraglio and Corsena are now situated. After the Roman period, when Italy became the scene of so many distracting factions, this retired valley had also occasional visits from some of the warring parties of the times. Frederick the Second, Emperor of Germany, was amongst the number.

The pages of history of the middle ages are full of the sanguinary conflicts of the surrounding republics, and the fortress of *Lucchio*, at the further extremity of the valley of the Lima, is a memento of the celebrated warrior Castruccio Castraccani.

Being desirous of seeing this ancient fortress, I proceeded there with a fellow traveller on horseback, attracted also by the report of the "bello palazzo della Contessa Inglese," which we found was only in the imagination of the owner of the ponies desirous of getting up an excursion. The fact is, we found a small house built by an English lady, who, with her three children and confessor, reside there during the summer months. I confess we were somewhat disappointed in that respect; but we saw the ruins of the castle and the natural beauties of the place, and not only that, but some other natural beauties which we did not expect; for we were conducted up the steep ascent

by two young women whose brilliant black eyes, my companion confessed, were more eloquent than words can express, and one of them being of a graceful figure as well, corresponded to the Arabian poet's description—

"She appeared like the moon,
And moved like the graceful cypress,
And diffused odours like frankincense,
And looked pathetic like the fawn:"*

One of the Tuscan type, "au teint rose bronzé," with the hair of ebony, and eyes "d'un noir velouté taillés en amande."

There are remains of the battlements, and something like a watch tower.

The situation renders such a stronghold almost impregnable: upon the summit of a high and almost perpendicular rock, a handful of men, if not taken by surprise, could hold out against an army of those days. The road, after passing the iron foundry about three miles from the

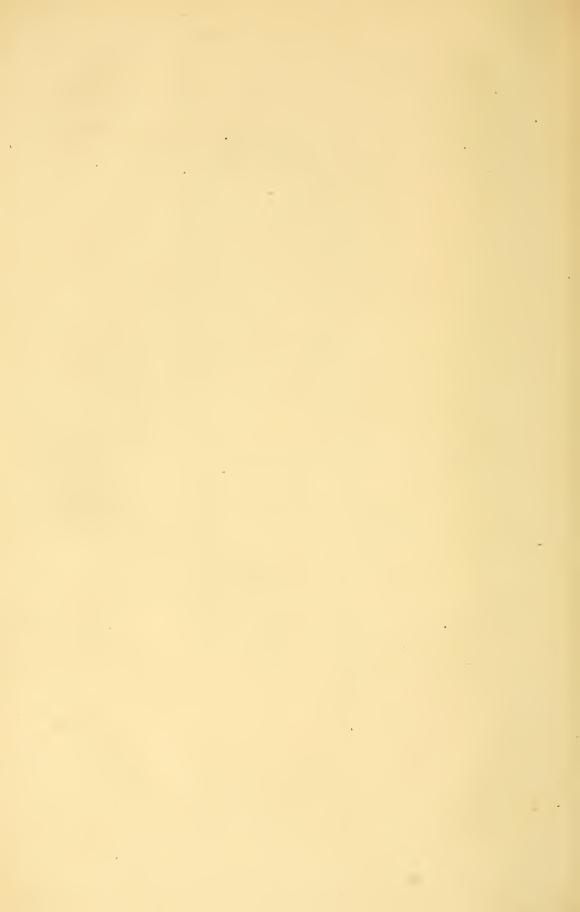
* بدّت قمرً و مالت غصنً وفاحت عمبر و رنّت غضالً

The musical cadence of these lines in the Arabic, is beautiful, and cannot be done justice to by any translation. A specimen of the "tunveen."

Meeting at Lucca with a gentleman labouring under cataract, there happened to be some ladies present, and in the course of my conversation I stated that it would be necessary to introduce some Belladonna into his eye, at which he *stared*, and the ladies *laughed*. I immediately said that I did not mean a Donna Bella, but that it was a preparation from a vegetable, and not from an animal. I have given on the frontispiece to this a specimen of the Donna Bella of the Tuscan type, who was so kind to us at the castle of the celebrated warrior Castruccio Castraccani.



La belle comme



Seraglio, and about one and a half from the Villa, is precipitous and almost dangerous: the distance altogether from the Ponte a Seraglio is about $8\frac{1}{3}$ miles. We were at least four hours getting there, and more than two hours and a half returning, but we came back the last three miles at a hand gallop. There are some exceedingly picturesque views of the meanderings of the Lima, the rushing torrents and cataracts, with the bridges. Some of the villages on the slope of the mountains had a very pretty effect. The principal mountain which we had to ascend, could not have been less than 5,000 feet above the level of the sea. The trees on the 3rd of May had scarcely budded forth, and it was well we had put on extra clothing. The only other incident, which I nearly omitted to mention, was, that being rather hungry on our arrival, we were able to procure eggs, mouldy bologna sausage, and sour wine, with bread, for four pauls and a half.

It is said that the whole district bordering on the Lucchese, Modenese, Bolognese, and Florentine territories, and which was emphatically called the "mountain," was covered with castles belonging either to the families of Cancelliere or Panciatici, who were so mortally opposed to each other as Guelph and Ghebelline. The feudal animosities of the middle ages were manifested in all their ferocity by the most desperate encounters, especially during the few last years of the thirteenth century, amongst the opposing partisans of the Bianchi and Neri.

"Mutilations, assassinations, and desperate battles followed in quick succession, and drew into their fierce bosoms men whose names have been so celebrated—Dante, the historian Dino Compagni, and the father of Petrarca were amongst them."*

Few places on the continent can surpass this delightful and romantic summer residence—the Baden-Baden of Italy. It is situated near the northern extremity of the Duchy, in a pleasant valley enclosed by numerous mountains covered with verdure, and amidst scenes of the most picturesque beauty, not far from the highest ridge of the principal Appenine range. This part of the Italian Alps runs about S.E. from the confines of Piedmont, and from it shoot several minor branches, forming by their irregularity a number of wild gorges, whose hilly sides are covered with oaks, elms, pines, and some of the noblest chestnut trees. Many furious torrents rush down the ravines intervening between one portion of these hills to the west, and empty themselves into the Lima. It is on the banks of this meandering river that the Baths of Lucca are situated. Three villages constitute what is generally denominated the Bagni di Lucca. They are respectively called Ponte a Seraglio, the Villa, and the Bagni Caldi; and contain a native population of about 1,250 persons. The two first are on the banks of the Lima, the last is situated on the couchant of the mountain overlooking the valley.

^{* &}quot;Handbook of the Baths of Lucca," and "Byeways of Italy."

The Lima, which rises near the Abetone mountain in the higher Appenines, rushes rapidly through the valley of the baths, and joins the Serchio in a plain about one-anda-half miles from the Ponte a Seraglio.

The locality of the Bagni is comprised in a mountain district of about two square miles, and the position of the respective villages is nearly east and west, although the road to two of them takes a wide dêtour, following the course of the Lima for a mile round the base of the mountain. The situation is peculiarly favorable, on account of the opening in the numerous vallies to admit of a free and constant current of air, and which renders the Bagni di Lucca the coolest summer residence of Italy.

The Duchy of Lucca, now incorporated as part of the Tuscan dominions, is 328 Italian square miles in extent, and contains more than 155,500 inhabitants. It is divided into 12 communes. The Bagni di Lucca are situated in the Commune di Controne, and owing to the fertility of the soil and geniality of the clime, produces abundantly the good things of the earth—the vine flourishes, fruits abound, and herbage is plentiful. Botanists, geologists, naturalists, philosophers, artists, and poets, may here find constant occupation, and the place is frequented by some of our most popular writers. The mountains in summer are clad with the richest foliage. In winter, snow is seldom observed in the valley or on the nearer mountains, whilst the summits of the higher range are covered.

The mountains surrounding the baths assume every variety of shape and position, but are always intercepted by numerous narrow winding vallies, traversed by a torrent or rapid stream. Commencing where the Lima unites with the Serchio, a valley of about a mile long, running in a direction east and west, and half a mile broad, begins. This gradually narrows at its extremity to within 300 yards, when it there divides into two branches, the smaller one ascending towards the north-east, and the other, keeping about an equal width, turns sharp round to the southward. For about one third of a mile it so continues, when it again bends to the eastward, and ultimately points its course north until it reaches the Villa, where it once more takes a direction to the east and south. The plan therefore of the valley of the baths somewhat resembles a horse-shoe, having in its interior the three villages and the mountain, on the top of which is erected the Croce di ferro. Through this valley, the Lima flows, being joined by three tributary streams between the Villa and the outskirts of the Ponte a Seraglio. The first is a torrent descending through a narrow ravine from the higher parts beyond Benabbio; the second is opposite the suburb of the Cantone, and is of similar size and description; the third is a rivulet called Camaione, which descends the narrow valley already mentioned as leading to the north-east. It passes at the base of the Bagni Caldi, and close to its junction with the Lima, is crossed by a substantial stone bridge.

PART II.—ROUTE,—AND DESCRIPTION, ACCOMMODA-TIONS, CLIMATE, &c.

ABOUT 30 minutes' railway ride from Pisa conducts the traveller to the city of Lucca, the distance from which to the entrance of the valley of the baths is two posts, or 15 miles—an agreeable drive of two hours through a picturesque country, along the left bank of the river Serchio. There is likewise a route on the opposite or right bank of the river. The usual road for travellers is by the former, which follows the windings of the river. It gradually ascends on a slightly inclined plane. Along this course the Serchio is traversed by four stone bridges. The first has the name of Ponte al Moriano, where there is a small village; the second bridge is named Decimo; the third Ponte alla Madelene, which is a curious structure. It consists of five irregular arches, the centre one of which is considerably larger than all the others placed together. The top of the arch is 60 feet from the water, while its span is 100. The breadth is not more than 8 to 10 feet. Nothing larger or heavier than the light conveyances of the country can cross it. The ascent is so steep as to incline from the Lucca road at an angle of 45 degrees, while on the opposite side it is still more. Its erection is attributed to Narses, the General of Justinian. Others have ascribed it to the Countess Matilda, sovereign of Lucca and Tuscany in the 11th

century. Its solidity has been well proved, for it has resisted the worst inundations of the Serchio.

About a mile further up, the Serchio receives its tributary, the Lima. Opposite to this point on the right hand is a pretty fountain of deliciously cool water, which flows from the side of the hill through a marble façade, and descends into a basin. Shaded by shrubs and weeping willows, the fountain proves tempting, and invites the traveller to partake of the pure element.

A little further on are the hamlets of Fornoli and Chifenli. From the latter is a neat suspension-bridge erected over the Lima, in order to connect the two roads which accompany the Serchio on either side of the valley through which that river flows. Passing round the base of the mountain, the traveller finds himself suddenly in the midst of the picturesque village of the Ponte a Seraglio, and almost the very first house which meets his view is "Cordon's English Stores," supplied with all eatables suitable to the tastes and habits of John Bull. The village of the Seraglio is divided into two parts by the Lima, over which is an excellent stone bridge of one broad arch, and wide enough to admit of two carriages passing easily.

If the stranger arrives on a summer evening, he is introduced to a scene tout a fait Anglaise. On either bank of the river, the vicinity of the Ponte is converted into a sort of Hyde Park and Rotten Row. The musical voices of ladies speaking English, meets his

ear in every direction. In front is the Square, or piazza del Ponte. A row of trees with seats underneath, adjoining the river, form the foreground of the piazza; while it is backed by a line of substantial-looking houses, with their white stuccoed fronts, the lower stories of which are converted into shops and caffés, and the upper are let out for the accommodation of visitors.

The vine-clad mountain from whence the thermæ emerge, rises immediately behind the piazza. On the right hand corner of the square is the road to the villa, and facing the square on the same side is the post-office. Nearly opposite, but slightly inclined to the left, is a large building of four stories facing the river. This handsome edifice is the Casa Cardinali, one of Pagnini's hotels; the next building in the same line along the river is the Cercle de Réunion, or club, which is now converted into a Trattoria, and beyond this is the Hotel d'Europe. The last in continuation is the Casino Reale, where every kind of public entertainment is held, and all the newspapers and periodicals can be seen. The establishment is well conducted, and the building itself is a specimen of the refined architectural taste of Signor Pardini, who constructed it. The façade is 120 feet long, with a portico supported by six Corinthian columns, which are a clever imitation of white marble. Two flights of steps in front lead to a terrace, which affords an excellent promenade.

From hence the road continues over the Camaione, and

is bordered on either side by a row of trees, affording a delightful drive on summer evenings.

At right angles to the road, and along the stream of the Camaione is a small road leading to the hospital, and behind this building is a pathway conducting to the hill, in which is situated the doccie baths above the hospital. By continuing the ascent we arrive at the *Bagni Caldi*. This establishment is entered by an archway. Part of the building was formerly a convent.

Returning from the Bagni Caldi, a good carriage road proceeds by a winding descent back to the Porte; passing on the way Bagni Bernabo, which is most delightfully situated, and has a terrace built up on the face of the mountain with trees and benches, and from whence a view of the valley, the Ponte a Seraglio, and the river, is presented immediately below. There is a more steep but shorter pathway leading from the Bagni Caldi; and higher up the hill towards the right, is a small road conducting to the baths of San Giovanni.

The road which leads to the villa commences from the Piazza del Ponte, passing the Pharmacy, the Market, Hotels de France, and Croix de Malte, and a row of several good-looking houses, the last of which is Casa Guidotti, formerly the Hotel de Russie, which is a large and substantially built mansion. This is one of the principal promenades of the valley and forms a most agreeable drive. About half way on the road is the neat cottage and grounds of Colonel and Mrs. Stysted, the

authoress of the "Bye Ways of Italy." The road is like most of those in Tuscany, excellent, winding round the base of the mountain on the one side, while the Lima borders it on the other. A varying and lovely aspect of romantic scenery is everywhere presented to the view, which naturally causes this situation to be one of the favourite rendezvous. There is a row of acacia trees on each side; the road is irrigated in the day time, and well lit up at night. Crossing the Lima beyond the town, called "The Villa," we return to the Seraglio by the Strada Letizia, an elegant drive constructed by the Princess Eliza, sister of Napoleon. It is bordered by the banks of the Lima on the one side, and by the descending hills on the other.

One of the best views of the whole valley of the meandering river, bridges, and habitations, is from the top of the mountain of the thermæ, and descending gradually by the winding road, at every turn of which some different aspect presents itself to the beholder.

There is no want of hotels, caffés, trattorias, and accommodations of all kinds. Three large hotels are kept by Pagnini, besides which there is the Croix de Malte, Orlando's Hotel Pelicano, Gregory's at the Villa, with a Casino and several private lodging houses belonging to the same proprietor.

Climate.—Those who have passed a summer in mountainous countries, experience an elasticity of spirits quite peculiar, owing partly to the diminished pressure

of the atmosphere, and to a purer and more oxygenized state of the air; also to the peculiar impressions on the mind from mountainous scenery. The air is not subject to great and sudden vicissitudes. Elevated 555 feet above the level of the sea, the valley is exempt from the sudden heat of the plains: 80° Fah. may be considered the maximum, and only occasionally is the temperature so high; the almost constant atmospheric currents through the gorges of the mountains tend very much to moderate the heat during the height of summer. From the month of May to the middle of October the weather is unusually sublime; the prevailing winds during that season are from the north and north-west. In the hottest months the temperature is certainly too great to expose oneself during the middle of the day, but it is pleasant enough even then in the shade; yet the morning and evening promenades and rides, and especially the moonlight nights, are always most agreeable, either in the Bernabo-terrace, in the arbour of San Giovanni, or in any part of the winding road which encircles the mountain. By taking a short sleep after an early dinner, according to the custom of the country, the body is more refreshed to enjoy the invigorating air of evening.

PART III.—THE ORIGIN OF THE MINERAL SPRINGS—DISTRIBUTION OF THE WATERS—THE NUMBER OF THE ESTABLISHMENTS—MODE OF ADMINISTRATION—AND CHEMICAL COMPOSITION.

Source.—These waters are derived from volcanic mountains situated behind the hill which overhangs the valley to the north. It is presumed that they receive some portion of their mineral ingredients after leaving their source, in filtering through the mountain from whence they emerge; and it is very probable, as supposed by Sir Humphrey Davy, that in this way they obtain the slight traces of iron and silica which they possess. Their temperature we may reasonably suppose to be much higher at their origin than at their exit, and it is probably in this way that we may account for the different temperatures of each of the baths: the Bagni Caldi, for instance, being as high as 43° Reaumur, whilst some others have a much lower temperature. The comparatively tepid character of the water of San Giuliano may possibly be accounted for by their greater distance from their primary source.

Distribution.—The waters form ten principal springs. I shall give an account of the eight most important ones:—The first is termed Bernabo, from the name of an inhabitant of Pistoja, who was cured of an obstinate malady. The building which contains these baths is well constructed, and contains eight apartments. Each

STON MEDIC

apartment possesses one or two baths of white marble, spacious and remarkably clean. The temperature is 35° R. This first establishment, which is nearest to the town, is situated nearly at the base of the mountain, on the side of a promenade which winds round it. It is usually frequented merely for refreshment and cleanliness: invalids resort to the other establishments.

- 2. A little further on the slope of the mountain, in a more elevated situation, is the establishment of the *Doccia rossa*. Invalids experience here the salutary effects of the thermæ applied in the various methods of external and internal doccie, which are well distributed.
- 3. The third establishment is called *i'Trastullini*. The apartments are numerous and furnished with couches. Here, as in the other establishments, the greatest attention is paid to cleanliness, and the linen is good.
- 4. Above the Trastullini, we find the establishment della desperata, so named from the marvellous cures attributed to them, when all the others have failed. Alibert says "on s'y attache, comme à un ancre de salut;" the highest temperature is 36° Reaumur.
- 5. Not far from this we have the Coronale, which has been considered specially suited for diseases of the head. Temp. 35° R.
- 6. Another has received the name *dell'* Innamorata, or *della Maritata*, from its supposed efficacy in cases of sterility.

- "La vezzosa Ciprigna i lunghi morbi
 Vincer vi diè che al suo piacer son figli:
 E la pronubo Giuno ai freddi sposi
 Dono per voi fecondita beata....
 O che giova più dir? se Febo istesso
 Ogni medica forza in voi diffuse?"
- 7. La Fontina di San Giovanni is said to possess qualities for curing certain neuralgic affections. Temp. 37° Reaumur. All these names and distinctions of the virtues of each source savour rather too much of the imaginative.
- 8. I Bagni Caldi or Doccione are the most considerable, as well as the most elevated. Their temperature is as high as 43° Reaumur. They supplied formerly the famous Bath de Corsena which is now only a vast reservoir. The establishment of the Bagni Caldi is situated high up the mountain above the hospital, erected by the munificent Russian nobleman, Prince Demidoff.* Well shaded promenades conduct to these baths, and one of the roads is adapted for carriages. There are a great number of private apartments, where every arrangement is found for the convenience of those who use the baths or drink the waters, and the attention of the domestics is everything that could be desired.

Many handsome and well furnished houses exist in this neighbourhood, almost all of which are let out to visitors frequenting the baths. The gardens are a great

^{*} Who has also built a chapel and baths for the poor who resort to his hospital, and a neat little bridge of communication between them, forming altogether a very elegant structure.

attraction: myrtles, citron, and orange trees; dahlias, anemones, and a variety of other odour-diffusing shrubs and flowers, abound in neatly arranged parterres. The principal house has royal apartments, and is furnished with elegance and taste.

MODE OF ADMINISTRATION.

After some indispensable preparations—especially a mild aperient, and the observance of temperate regimen—the patient commences by taking the waters by glassfuls, each glass containing about six ounces. It is necessary to observe the difference which exists in the action of the waters which flow at the foot of the mountain, and those higher up. The former contain less saline substances in solution, from their lower temperature, with which it is usual to commence, ascending gradually until the most concentrated solution is taken at a higher temperature. The waters are most properly taken during the early morning promenade. The laxative effect may be aided by the use of the ascending doccia, or, if requisite, the waters may be rendered more active by the addition of 12 grains of sulphate of magnesia or sulphate of soda, to each glass.

The effects of the waters are manifest on the intestinal mucous membranes and on the urinary organs, but their taste is by no means agreeable, and far less efficacious, in my opinion, generally than the waters of Monte Catini, from whence they may be imported fresh from their source in about five hours.

The thermæ are often advantageously employed as baths in cases of retrocession of some morbid principle, which it is required to call to the exterior by the salutary action of what is termed revulsion. Each individual enjoys the advantage of the experience and advice of the resident medical attendant, as to the most appropriate mode of administration to each particular case. Baths, douches, of every form and degree of temperature, are always ready for the treatment of particular engorgements, rheumatisms, neuralgies, diseases of the skin, uterine affections, &c. Their local internal application is often advantageous in uterine affections, and in leucorrhœa.—

Vide "Cases and Practical Observations."

It would be a great improvement to introduce the oriental practice of pressing the muscles and stretching the joints of the body, as so dexterously performed in a Turkish bath.

Such is the abundance of all the sources that more than 1,200 baths can be furnished in one day.

So many are the attractions of the Bagni de Lucca, that strangers assemble there from all parts of the world—English, French, Italian, American, German, Pole, Russian, and even occasionally Turks and Egyptians—all desirous of enjoying not only the waters but the salutary associations of a pure atmosphere of the splendid

days of spring and summer, the romantic scenery, the melodious notes of the birds, and the agreeable intercourse of distinguished society.

The chemical properties of the waters are by repeated experiments found to consist of—1st, a considerable quantity of free carbonic acid gas; 2nd, sulphates of lime and magnesia, and acidulated sulphates of alumen and potash; 3rd, hydrochlorate of soda and magnesia; 4th, carbonates of lime and magnesia; 5th, silica; 6th, alumen; 7th, oxyde of iron; thus differing very little from the sources of San Giuliano, excepting that they contain muriate of soda or common salt, and no carbonate of soda, and that some of the sources—but more especially the Bagni Caldi—are of a much higher temperature, and are consequently preferable in cases where we wish to avail ourselves of great heat.

THE ENVIRONS OF THE VALLEY.

Prato Fiorito.—The ascent to this celebrated spot for excursions is by the Bagni Caldi, the distance from which is about five miles. The road first winds along the face of a mountain at an elevation of about 300 feet from the valley below. The mountain is planted with a thick forest of chesnut trees. As the valley ascends and becomes narrower, the road declines to it until a bridge is crossed over the Camione, which now

appears like a rugged thread, forcing its way over rocks and masses of debris, which have fallen from the adjoining mountains. The stream, however, when swollen by heavy rains or by the melting of snow, is equally as impetuous as the others in this hilly region, breaking down barriers, roads, and everything in its way.

About a mile beyond the bridge, the beaten track dwindles into a mere stony mountain path, which ascends by a tortuous course on a sharp acclivity to Monte di Ville. The track continues to ascend until the summit of the *Col* is reached, where it becomes more level, commanding most delightful views to the top of the "field of flowers," which are to be found in every variety of colour; jonquils, gentians, &c., are in abundance during the spring and summer. There is a most extensive prospect from this enchanting spot, even to the Mediterranean which is seen in the distance. To enjoy the full effect, the place should be visited at sunrise.

Gallicano is the next object of attention for a pic-nic. The road to this from the baths is on the right bank of the Lima, and afterwards the Serchio, until the latter is crossed by a bridge near the journey's end. On the way a new and handsome ponte across the Fegano is passed over; and just before this is seen, on the right hand, a road leading to Tereglio, a village situated on the summit of a steep mountain, hanging upon its brow in a surprising manner. The view from this village is good. There are some old paintings in

the houses and churches, and the place itself is commemorated as having been occupied by the French army.

Beyond the Fegano, and before arriving at the Ponte Calivorno, is the river and valley of l'Ania, up which runs an ascending road to Coreglia, where there is a castle which is much visited.

Some few miles further on the road to Gallicano, by turning off to Borga, an old Tuscan city is seen, which is situated about 10 miles from the Bagni.

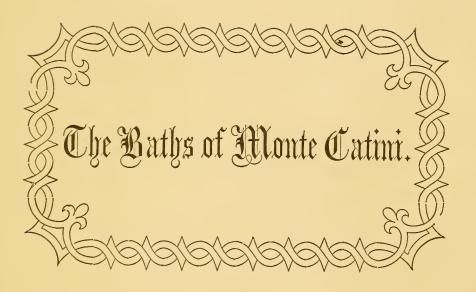
At Gallicano, or rather one mile beyond, there is a small chapel hewn out of a rock by pilgrims of the earlier ages, and is an object of curiosity.

Many other excursions might be made to Granyola, Benabbio, Bargiglio, Ponte Nero, and Croce di Ferro, and lastly to Lugliano, where a large bower has been constructed under an enormous ancient tree, together with a fountain and garden in the neighbourhood. From this spot there is a magnificent prospect of the whole Bagni, and the vallies, as well as of the adjacent scenery, even as far as the highest peak of the Appennines. Of course

"You will come to the bower Which was shaded for you"

by the Marchioness of Bute and Lord Sandon; but take care you do not pic-nic too late, for her Ladyship had too much regard, I should hope, for the health of her fair countrywomen to wish that

"Their bed should be roses, All spangled with dew."









The English Gem of Montecatini.

THE BATHS OF MONTE CATINI.

"Necesse est unumquemque fontem per experientiam cognovisse."

Galen.

THE reader will pardon my digression to state that the real subject of the annexed *Gem* is an English lady, who patronizes, at my recommendation, the waters of Tettuccio at Monte Catini.

She has a mole upon her neck, like a spot of amber on a tablet of marble, as the Arabian poet elegantly expresses.* She occasionally resides in Florence, and, moreover, is so singularly handsome, that I have given her the name of the Florentine Iris. Buffalini pronounced her consumptive, but to the great consolation of herself and friends, I declared she was not so. I shall never forget meeting her for the first time at the table d'hote of the Croce di Malta. Four handsome Englishmen came in to dinner, who were driving through Italy their four-in-hand. English people when abroad discard a good deal of that hauteur for which

* لها خال علي صفحات خد كنقطة عمير في صحن مرمرٍ they are often noted by foreigners, and become communicative even among strangers. The conversation was agreeable, and there were one or two ludicrous instances of what is rather vulgarly termed "being taken in." The first person deceived was myself. The four Englishmen were conversing in English. Assuming the lady of my sketch to be Italian, as she was conversing to parties near her in that language, I said to her, "La Signora intende la lingua Inglese?" When to my surprise she immediately replied in English, "I am an Englishwoman; I am sorry you should take me for anything else." I confess I was certainly taken in and rather confused, but excused myself in the best manner I could, by stating "I had been travelling in so many countries abroad, that I was at times perfectly at a loss in recognizing at first sight people of my own country, added to which she spoke Italian so well that it was not to be wondered at if I mistook her for one of the country."

The conversation immediately became general from this mistake of mine. The lady was very severe on the Austrian military. I observed that the Austrian Infantry officers were neat and well dressed, but that the Cavalry officers looked very bad, especially with those ungraceful, shapeless trousers, half leather up to the knee, and the other part cloth, so shabby, and the leather so unpolished, that I could imagine Moses in London rejecting them at sixpence as old clothes! In fact, all foreign Cavalry contrasted very poorly with ours. I observed

three of the four-in-hand agreed with me and seemed amused at my running on against the Dragoons, whilst the other totally disagreed. "In short," I added, "they are to my eyes a perfect horror." "Well," said the fourth of the four-in-hand, "that is a sell, as I happen to be one of the Austrian Cavalry."* The fact is, he was an English gentleman holding a commission in the Austrian Dragoons, on leave of absence to travel with his friends, who, I imagine, were of the English army. We all parted on the most amicable terms, after having spent a very agreeable evening together at the Croce di Malta.

SITUATION AND DESCRIPTION OF MONTE CATINI.— ANALYSIS OF THE WATERS.—CLIMATE, &c.

"La più ridente Provincia della Toscana, la Val di Nievola, è irrigata da due piccoli fiumi, che per altro non son mai senza acqua, la Pescia, a la Nievola, rendono fertilissimo il piano di questa bellissima vallata, che si cuopre ogni anno di ricchi messi. I colli, che la circondano sparsi d'olivi, e di viti, producono il più delicato olio, ed i più generosi vini della Toscana; ne coronono la vetta antiche rocche, le di cui torri coperte d'ellera, e di capperi s'inalzano di mezzo ed alti castagni, ed ai cipressi."—Sismondi.

In my visit to this favourite resort of the Italians, I was highly indebted to the kindness and hospitality of the resident physician, Doctor Rannieri Focchini, who afforded me every facility in my enquiries. Many excellent works have been written on the baths of Monte

^{*} There are 300 English officers in the Austrian service.

Catini, by Barzellotti, Giuli, Bicchierai, Malluccelli, and lastly, by Dr. Maunoir, whose respective publications I have carefully perused, and to whom I am indebted for much valuable information.

The ground from whence these mineral waters arise, is flat and unproductive, favourable for little else than the growth of marine plants, owing to the waters, which, in their composition, bear so great an analogy to sea water. The soil in which these mineral waters arise has been termed by Bicchierai, the *Campo-minerale*. It reposes on a calcareous sandy stratum usually termed *Travertino*, of about a square mile in extent.

The baths of Monte Catini take their name from the village situated on the crest of a high mountain overhanging the plain to the north, and at the base of which the establishments have been erected. A Florentine historian of the 14th century attributes the origin of the name of Monte Catini—formerly Monte Catalina—to Cataline, who encamped there after his defeat by the Romans at Picenum, now called Pitecchio. Be that as it may, Monte Catini with its neighbouring fortresses and castles has always been celebrated in the annals of warfare, especially in the contests of the Republics of the middle ages. A handsome road or avenue planted with elms, acacias, and palm trees, reminding one of the Cascines of Florence, leads to the Thermæ of Leopold, the Bagno Regio, and the establishment of Tettuccio.

At the commencement of the avenue of Monte Catini,

between this and the grand route from Florence to Lucca, are situated the edifices inhabited by visitors during the season, which are spacious, and afford every accommodation. A circumstance not a little creditable to those who have the management of this part of the establishments is, that for the reasonable sum of five pauls (2s. 23d. English money) a gentleman can have complete board at the Locanda Maggiore, consisting of three good meals a day, including wine at dinner! The Tuscans, therefore, appear to know how to manage matters in this respect most economically. One of the villas is the Palazzo, or Casino Reale, which is appropriated for His Imperial and Royal Highness the Grand Duke. His Royal Highness is said to have a great penchant for these baths, and usually visits them for a fortnight during the season. There are also a number of private houses let out in suites or single apartments.*

The thermal edifices of Monte Catini are constructed

* Dr. Maunoir says:—" Personne, que je sache, n'a encore essayé d'aller vivre à Monte Catini Alto. Cependant c'est là une position délicieuse; l'air y est vif et pur, et on y jouit de points de vue enchanteurs. Il suffirait que deux ou trois familles donnasent l'exemple, pour que tout le monde y courût. M. Cerchi, l'un des propriétaires les plus considérables du lieu, m'assure que l'on y trouverait facilement des logements propres et commodes. A en juger par la maison de ce Monsieur, il y aurait peu de chose à fair pour rendre Monte Catini un endroit très habitable. Ce à quoi la commune aura, du reste, grandement contribué pour sa part quand elle aura réparé son chemin vicinal, et que la finance pourra venir des bains visiter ce qui reste des vingteinq tours et des sept portes de Monte Catini, sans risquer les jambes de ses chevaux ou les ressorts de ses drowskis."

with luxurious taste. The one which bears the name of the benefactor of Tuscany was built by the architect Paoletti.

The Thermæ of Leopold contain a considerable number of baths, douches, vapour baths, and every other convenience.

The entrance hall which opens on the peristyle, forms the separation between the male and female departments. Four elegantly-furnished saloons communicate with the vestibule, each having a contiguous cabinet containing one large bath of white marble. Two of these baths are oval, and two are octangular. Five other apartments on the right and left, conduct on each side to nine other baths, some of the ordinary size of a single bath, and one for the accommodation of a great number of persons at a time. There is likewise at each extremity of the building a large circular pool destined for persons who receive medical aid at the hospital. All the sources which supply the Crater of the Leopoldine establishment being collected into one great reservoir, and exposed to evaporation and consequent diminution of temperature, it has been necessary artificially to heat the waters.

The apparatus for this purpose is situated at the back of the premises, and was erected by the administration at the instigation of the late Professor Barzellotti. Were it not for this arrangement, it would have been impossible to supply sufficient hot water for the demands of the numbers of applicants for baths. The artificial heat—

which can be added by the bather at his pleasure—does not sensibly alter the physical or chemical properties of the mineral water by raising it a few degrees higher, especially as it contains little or scarcely any gaseous substances.

The reservoir of the Thermæ of Leopold is situated in a court-yard at the back of the building. It is 40 Florentine braccia in circumference, and from four to five braccia in depth. The depth of the water is generally about $2\frac{1}{2}$ braccia, and higher when it is supplied by all the sources. Bubbles of air are seen to rise to the surface, which are composed principally of azote, carbonic acid, and of a small quantity of oxygen. A sort of scum covers the surface, arising from the ulva labyrinthiformis, upon which is deposited at the bottom of the reservoir a slimy substance which is raised to the surface of the water, together with a certain quantity of mineral mud charged with insects. The water is a little turbid, and an odour arises resembling that of marine marshes. The reservoir communicates with the interior by means of two conduits.

The establishment of the Bagno Regio is about four hundred paces from the Thermæ of Leopold, and is situated on an eminence on the other side of the Salsero, which torrent separates it from the avenue. This elevation of the ground is formed by strata of the travertino which constitutes the base of the Campominerale, and it is in the bed of this calcareous

substance in which is hollowed out the crater that serves as a reservoir to the sources of the Bagno Regio. This reservoir, of quadrilateral figure, is a metre in depth, 12 in length, and 8 in breadth, and is situated in the centre of the establishment. The bottom and sides are covered with a mammeliform incrustation, and a yellowish black ochre. The water, which is tolerably limpid, is spread over with an earthy pellicle, presenting a radiated surface when exposed to the sun, and gives out a slight odour of saffron. The aquatic insect termed assellus vulgaris, which abounds to a great extent, was a source of much annoyance to bathers, but as this insect is found to prefer the vicinity of the sources, the inconvenience arising from them has been obviated by causing the water to be conducted to the baths at a distance from the reservoir. Bubbles of air are perceived rising to the surface, as in the other establishment of Leopold. The temperature of the Bagno Regio is $20\frac{1}{6}$ Reaumur (77 Fah.)

This establishment, which is also of solid and elegant structure, contains eight bathing-places, a pool, and a certain number of douches, also separate accommodations for the use of the indigent who are received into the hospital.

The space situated between the Bagno Regio and the Thermæ consists of extensive pleasure grounds and gardens; and the thermal edifices just described, with

the handsome building appropriated for the reservoir and baths of the Tettuccio, are arranged around the grounds, which are adorned with shady walks, and a number of marble seats, statues, &c.

The Tettuccio is composed of two parallel buildings, having a large court between them, in which is situated the reservoir and a small garden, covered over in summer by an awning or tent to protect visitors from the sun. This awning—*Tettuccio* or tent—has given the name to the establishment.

There are several large apartments devoted for the stores or depôt of the water of Tettuccio, contained in numerous large flasks ready for exportation. The rest of the building is appropriated for baths, douches, and every other convenience.

The fourth source is that called Rinfresco, or di Medici. It is situated a little distance from the other establishments. The building is constructed with much taste, and the apartments are arranged in a circular form around the crater or reservoir. The temperature of the water is 82° Fahrenheit.

Intermediate to the Tettuccio and di Medici is situated the establishment della Torretta, so called from a small tower that formed one of the principal ornaments of the garden in which this source was discovered a few years ago.

The water *della Tamarici* is not far from the Thermæ of Leopold, and has derived its name from the *Tamarix* gallica which grows there.

The waters of Torretta and Tamarici are perfectly transparent and without odour: the former has a very saltish but by no means unpleasant taste; whilst the other, which is less so, affects the palate more strongly than the waters of Tettuccio and Rinfresco.

The Campo-minerale is occupied in various directions by small sources of water, more or less charged with mineral substances. Besides the calcareous travertino, there is a sterile sandy earth composed almost entirely of silex, united with a reddish clay mixed with carbonate of iron and lime.

The valley of Nievola—as well as all the vallies and ravines formed by the ramifications of the base of this part of the Appennines—approaches in figure to a triangle, the apex of which corresponds to the village of Prunetta, near to which on the east the Reno, and on the west the Péscia, take their source. The mountains there divide into two tortuous branches, ascending and descending successively as they advance in the valley. Towards the north are the heights of Monte Catini and Martiana; whilst the principal branches which form the sides of the triangle are, to the east, the chain of hills of Seravalle, Monsummano, Monte-Vettolini, and Cecina-mountains which separate the Val di Nievola from the Val d'Ombrone Pistoiese; then to the south, the Lake of Fucecchio, in the neighbourhood of the Arno, which forms the base of the triangle; lastly, to the west, the hills which

separate this valley from the Lucca* district; these last continue to descend in a south-west direction towards the hills called Monte Pisani. The Nievola, which gives its name to the valley, takes its source between the hills of Seravalle and Monte Catini.

The rivers Pescia and Nievola transmit their waters to the marsh or Lake of Fucecchio, receiving in their course many tributary torrents. The Lake of Fucecchio supplies, with its accumulated waters, a canal termed Usciano, which is situated to the south-east of Monte Catini.

All the mineral sources of Monte Catini are nearly identical in their composition; and—if we except the carbonate of iron which is found in some of them and not in others—differ only in the quantity of their saline substances. The chloride of soda, or common salt, is the most abundant; they contain also the sulphates of soda and magnesia, and the carbonate of soda. Almost all arise at the surface of a marshy soil.

Professor Giuli, of the University of Siena, was the

* Many persons in England, far from vulgar, commonly pronounce this city as if it were written Luck-a, which is quite incorrect; for, though spelt with a double consonant, the word is Look-a, or, to make it still more intelligible, it will be useful to remember the accident that happened to His Highness the Duke of Lucca in London, many years ago, who, on stepping out of his carriage, fell down in the mud, when a well-known wit, passing at the time, exclaimed, "'Tis only filthy lucre."

first to discover the existence of iodine and bromine in these waters.

As all these sources of Monte Catini are composed of the same elements in different proportions, they may be classed in numerical order by a descending scale, at the head of which are the Thermæ of Leopold; then the Torretta, Tamarici, Bagno Regio, Tettuccio; and lastly, the source of Rinfresco or di Medici. The waters of Monte Catini offer a great resemblance to those of Cheltenham. Their composition has also a great analogy to sea water. From the analysis which was made by Professor Guili upon 100 ounces of the water of the Mediterranean, taken about a mile from the Port of Leghorn, it appears that the Mediterranean water contains nine times as much of saline substances as the Tettuccio water, and three times as much as the Thermæ of Leopold.

The following is the relative proportion of mineral ingredients in each of these different sources, taking sea water as the point of comparison.

In 12 ounces of water are found in

Tettuccio . .

48

25

Having already given the composition of sea-water, and of the sources of Tettuccio, Tamarici, and Torretta, it will be only necessary to give the analysis of the following:—

THERMÆ OF LEOPOLD.

Natural temperature 89 Fah. in 100 ounces of water.

| | | | | | | | | | Cubic Inches | |
|-------------|--------|--------|-----|-----|---|------|----------------|-----|-----------------|----|
| Carbonic ac | id gas | | | | | | | | . 8.4 | |
| Oxygen . | | • | | | | | | | . 1.20 | 0 |
| Azote | | | | | | | | | . 2.4 | 1 |
| | | | | | | | | | ~~~ | _ |
| | | | | | T | otal | | • ^ | . 12:04 | 4 |
| | | | | | | | | | | - |
| | | | | | | | Grains | . 1 | n 1000 parts | 3. |
| Hydriodate | of Po | tash | | | | | 6. | | 0:10416 | 3 |
| Hydrochlora | ate of | Soda | a . | • | | | 1,060 | _ | 18.40278 | 3 |
| " | | Lim | е. | | | | 32 | _ | 0.5555 | ŏ |
| ,, | | Mag | nes | ia. | | | 25 | 0 | 0.43073 | 3 |
| Sulphate of | Soda | | • | • | • | | 16 | _ | 0.27604 | £ |
| " | Magn | esia. | | • | | | 32 | _ | 0.55555 | 5 |
| ,, | Lime | | • | | • | • | 16 | _ | 0.27604 | £ |
| Carbonate o | f Lim | ie . | • | • | • | | 20 | | 0.34722 | 3 |
| " | Mag | gnesia | a . | • | | ٠ | 2 | _ | 0.34722 | 3 |
| " | Iron | ١ | | • | • | • | $\frac{1}{2}$ | — | 0.00833 | } |
| Silica | | | • | • | • | • | $1\frac{1}{2}$ | | 0.02504 | F |
| | | | | | | | | | | - |
| | | Tot | al | • | • | • | 1,211 | | 21.01616 |) |

BAGNIO REGIO.

Temp. 77 Fah. in 100 ounces of water.

| 2 |
|--------------------------------------|
| Cubic Inches. |
| Carbonic acid gas |
| Oxygen |
| Azote |
| |
| Total 9·46 |
| |
| Grains. In 1000 parts. |
| Hydriodate of Potash 4 — 0.06944 |
| Hydrochlorate of Soda 590 — 10.24305 |
| " Lime |
| ,, Magnesia 16 — 0.27604 |
| Sulphate of Magnesia 16 — 0.27604 |
| " Soda 10 — 0·17359 |
| ,, Lime |
| Carbonate of Lime 43 — 0.74652 |
| " Magnesia 17 — 0.29513 |
| " Iron 1 — 0.01735 |
| |
| Total 742 — 12.87847 |
| |
| |
| |

RINFRESCO OR SOURCE DI MEDICI.

Temp. 82 Fah. in 100 ounces of water.

| | | | | | | | Cubic Inches. |
|-------------------|---|--|--|---|--|--|---------------|
| Carbonic acid gas | • | | | • | | | 2.89 |

| | THI | E BA | rhs | 8 01 | F N | ION | TE | CAT | TINI. | | | 73 |
|-------------|--------|------|------|------|-----|-----------------|-----|-----|-----------------|----|------|--------|
| Oxygen | | | | | • | | | ٠ | | • | | 1.38 |
| Azote | | • | • | • | | • | | | | • | • | 1.38 |
| | | | | | | \mathbf{T} ot | tal | ٠ | | | | 5.65 |
| | | | | | | | | G | rains. | In | 1000 | parts. |
| Hydrochlor | ate of | Sod | a. | | • | • | | • | 138 | _ | 2.3 | 9583 |
| " | | Lim | le . | | • | | | | 16 | | 0.2 | 7604 |
| " | | Mag | gne | sia | , | | • | • | 8 | | 0.1 | 3888 |
| Sulphate of | Soda | | • | • | • | | • | | 5 | | 0.0 | 8680 |
| ,, | Magn | esia | | • | • | | • | | $16\frac{1}{2}$ | | 0.2 | 28437 |
| " | Lime | | , , | | • | | • | • | $16\frac{1}{2}$ | — | 0.5 | 28437 |
| Carbonate o | of Lim | ie . | | • | | • | | | $10\frac{1}{2}$ | _ | 0.1 | 8192 |
| ,, | Mag | gnes | ia. | | • | | | • | 11/2 | | 0.0 | 2604 |
| | | | | | | | | | | | | |

The climate of the baths of Monte Catini is not found to be insalubrious, notwithstanding the existence of two extensive marshes—that of Fucecchio and of Bientina—which are situated the one at three miles, and the other at seven, to the east and south-west respectively. The winds from the north-west, which prevail during the months of July and August, carry away all vapours that occasionally may arise, and contribute to cool the atmosphere during that season. The inhabitants themselves are not unhealthy, and, at all events, the bathing season terminates before the autumn has become sufficiently advanced to occasion any apprehension of malarious

212 - 3.67425

exhalations from decaying vegetation. The inhabitants of this fertile valley are chiefly indebted to the humanity and generosity of Leopold I. for the present salubrity of the country, who sacrificed his private interests to the public utility. "Renoncant genereusement aux revenues considérables que sa maison retirait de la ferme des étangs de poissons, il décréta la mise en œuvre de tous les moyens necessaires, quelque dispendieux qu'ils fussent pour détruire la cause de l'infection et rendre le pays à la culture. Ce fut alors, que l'on vit bientôt succéder comme par magic et dans le court espace de huit ans, à la misère et à la maladie qui avait si longtemps pesé sur ces longtrées, une population vigoureuse et des habitations saines; que l'on vit surgir partout des villas, des palais, des hotels, et enfin l'etablissement Thermal actuel avec ses jardins, et ses promenades, qui, pour l'élégance et le grandiose de ses édéfices autant que pour la distribution bien entendue de ses diverses parties, est non seulement sans rival dans le reste de l'Italié, mais encore peut aller de pair avec ce qu'il y de mieux daus ce genre en Europe."*

Monte Catini is accessible from Florence by railway as far as Pistoia, and thence by an excellent road. It is likewise easily arrived at from Leghorn, Pisa, and Lucca, as far as Péscia by railway, from which latter town it is distance about five miles. Between Lucca and Péscia is seen to the right the Villa di Collodi, built in the

^{*} Maunoir, p. 167.

noble style of another age, whose gardens and palaces are symmetrically arranged in *échélon* on the slope of a hill covered with olive and chesnut trees.

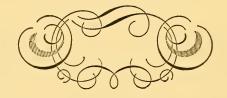
From the heights of the Monte Catini,* upon the summit of which the ancient fortified bourg is situated, a most extensive view of the whole country is presented—the

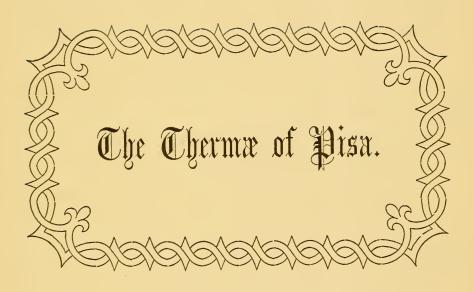
* The Monte Catini mentioned above, and so justly celebrated as the principal watering place in Tuscany, must not be mistaken for the other Monte Catini near Volterra, equally celebrated for its copper mines, and the most productive in the Italian States. This profitable mine had been worked for 600 years, with more or less success, by the Italian proprietors, till in the year 1832 it was abandoned in despair, and finally sold to two English gentlemen, Messrs. Sloane and Hall, who, by a small but judicious expenditure, set courageously to work, after the mode de Cornwall, and it now yields a clear profit, it is said, of £15,000 per annum; and there is no reason to doubt that the neighbouring mines of Monte di Miemo will turn out, under steady management, as good as their neighbour. Apropos of Voltera: - This old town is built on the top of the ridge, in a most commanding position, from which the inhabitants say they have looked down on the plain below for 6000 years; adding, that their eagle's nest was a city in decay thousands of years before Romulus and Remus had existence. They even shew the stranger gateways and buildings 3000 years old, in a tolerable state of preservation; and it seems that the city has, during its long career, borne six or seven different names. I do most decidedly think that the officers of our Indian service, with chronic liver complaints, dysentery, and protracted intermittent fever, accompanied by enlargement of the spleen, would do well to spend a month at Monte Catini, Pisa, or Lucca, and drink the Tettuccio waters at either of these places: living being so remarkably cheap is a great advantage to a subaltern. When will the Honourable East India Company grant the boon of two years' furlough, without the sacrifice of staff appointments, beyond the limits of Asia Minor and the Cape, on medical certificate? It has long been talked of, and would be a decided boon. How many a talented officer have I known, who has obtained a staff appointment from merit or otherwise, linger out a vegetative existence year after year, reluctant perhaps to give up the peeuniary advantages which enable him to remit to a widowed mother or some other dear relative, and who never leaves an Indian soil, or leaves it with an irrevocably broken constitution.

rich valley of the Nievola, with its châteaux and ancient fortresses; the bourg of Buggiano, situated on a hill; and the villas of Bella Vista and Massa. In the mountains further to the north is seen an ancient fortress, one of the strongholds of Castruccio Castraccani.

In the direction of Pistoia is beheld the ancient fortress of Serravalle, built on the summit of a lofty pyramid, and forming one of the most picturesque objects in the neighbourhood—" ses deux tours élancées, dont les murs, jaunes de vétusté, se dressent la comme une apparition du moyen-âge, pour contempler d'un air hautain et brutal toutes ces campagnes fécondées par le genie de la civilisation moderne."*

* Dr. Maunoir; who has given an account of two of those furious battles which occurred in the plains beneath Monte Catini in 1315 and 1330, and where the most celebrated warriors of the opposite parties of Guelf and Ghebelline were present.—Vide Maunoir, pp. 169—175.







THE THERMO-MINERAL BATHS OF PISA OR SAN GIULIANO.

HISTORICAL AND TOPOGRAPHICAL NOTICE.

"Pisa antichissima, e nobile citta Greca della Toscana.—Antonio Cocchi.

ALLA GIORNATA.

What is the meaning of this singular rusty iron chain hanging over the door-way of a nobleman's mansion on the Lung'arno of Pisa? Thereby hangs a The mansion is one of the most superb private tale. houses in the city, and is entirely built of marble, from the adjoining quarries of San Giuliano. The proprietor, Giovannini, was a rich shipowner of Pisa, in the days of the then flourishing Republic, when its harbour now choked up—was accessible from the Mediterranean, and its fleets and argosies were bearing the proud Pisan flag from the shores of Tyre and Sidon to the Pillars of Hercules. Giovannini was a slave-owner, and carried on a large and lucrative commerce with the opposite shores of Bona and Algiers, with Tunis and Tripoli, with Sfax and Jerba. Like many of his countrymen, amidst a good deal of fraud and piracy induced by a roving life, he still found a place for much of the

religious sentiment, and when his favourite slave, Mamo, requested his freedom, according to an old promise, his master replied that he would give it him whenever he "found his master eating meat on a Friday!" The poor slave was obliged to be satisfied, but, in the course of a few years, Christmas Day happened to fall on a Friday, and the austerities on the 6th day of the week, gave place to the gaieties and jollifications of Christmas Day, when the merchant's table groaned with the usual variety of baked meats. Mamo caught his master eating a venison-pasty, and on the following morning reminded him of his promise, and was thereupon graciously manumitted, and presented with a sum of money and his passage paid in a xebec returning to the Dardanelles.

The following spring Giovannini set off on a fresh voyage to the Coast of Barbary, with a rich adventure to Tripoli; but when becalmed between the Islands of Malta and Candia, the vessel was attacked by corsairs, and all the crew and passengers were taken prisoners up to Constantinople, and sold by auction in the slave-market! Here was a melancholy change for the wealthy Giovannini. He was bought by the Government agent, and sent into the dock-yard to work in chains with the ship-caulkers. He had not been many months in the Turkish hulk, before a respectable man paid the prisoners a visit from the Admiral, and who should it turn out to

be but Giovannini's former slave Mamo, who immediately recognised his old master, and, without many words, went back and used his influence with the High Admiral, and stipulated for Giovannini's release. This was not done without money; but the kind Mamo was perfectly successful, and returned to the dock-yard with a written order for Giovannini's freedom.

He lost no time in starting back for his beloved port of Pisa, where he found himself tired of roving. He hugged the three feet of the identical chain which he had worn on his leg in the dockyard of the Infidels, and determined to stop on shore and build a palace of marble, in front of which, to commemorate his captivity, he hung up his iron chain, where it has been suspended ever since, over the grand entrance, and dedicated "Alla Giornata;" to Life, to Day, to Liberty, and Joy.

The contemplative man is struck, every step he takes in Italy, at the magnificent monuments of its former glory. When the rude and barbarous natives of England had just been overcome by the bold bastard from Normandy, and the conquest of our island had been completed, the stately Cathedral of Pisa was being built, and the unique tower, unrivalled in the world, was raising its lofty and imposing head. What were these people that so far excelled the

Britons at that remote period, 800 years ago? They were a rich and commercial people, just as they had been a powerful and warlike people 1000 years before that, when Cæsar, with Pompey on one side of him and Crassus on the other, delighted to ride their noble steeds from Rome to Pisa and Lucca, where they were usually met, on these excursions, by 20,000 cavalry, who mustered outside the city, to do honour to the master of the world.

Pisa has been no less famous as a maritime colony of the Greeks in the days of Æneas, than it is at the present moment an object of attention for its celebrated Leaning Tower,* its Cathedral, and its Campo Santo (the earth of which, to the depth of six feet, was brought by the Crusaders from Palestine, and some think by Richard Cœur de Leon), and its aqueduct of a thousand arches. It is divided into two nearly equal parts by the river Arno. Viewed from the summit of Bellvedere—a part of the Monte Pisani chain of hills, and so called from its extensive prospect—we behold the fertile plain watered by the rivers Arno and Serchio, intersected with level roads and

^{*} By-the-bye, the tower of Pisa, which leans 12 feet out of the perpendicular, was of course commenced like all other towers; but the foundation giving way when the structure was half up, the work was not proceeded with, and it lay neglected nearly two hundred years. The magistrates were then invited to proceed with it, but instead of taking it down were decided by a bold genius in the fifteenth century to carry the tower up exactly at the same angle, which was accomplished most successfully.

railways, the aqueduct commencing from the valley of Asciano, at the base of the mountain, and extending in a strait direction for a distance of about four miles to the city, the Mediterranean, with the island of Gorgona in the distance. Picturesque villages, and châteaux are scattered in the direction in the vallies and plain below. The port and harbour of Leghorn appear to the left, and to the right the winding gorge of the mountain leading to the City of Lucca. Pisa, with its cathedral, churches, and tower are clearly seen.

The inhabitants are indebted for the aqueduct to Ferdinand III., Grand Duke of Tuscany, and to Cosmo, his son and successor. It was considered at the time of its construction as a work of scarcely less than Roman magnificence. It conveys the purest water in abundance to the city, and contributes much to the health of the inhabitants. The waters proceed from sources in the mountains above. These sources are preserved with great care in a "deposito" on the mountain, consisting of a house and garden walled in, the arms of the Sovereign being placed above the doorway.*

A very great advantage in favour of Pisa is the mildness of its climate, and especially of its winter

^{*} In various parts of the aqueduct is the following incription on marble:— "Aquæ ductum a Ferdinando Magno Duce, Etruriæ III. Salubritate urbis inchoatum Cusmus II. Fil. Magn. Dux IV. perfecit anno MDCXIII."

nights. It is not unusual, even in the end of December, for the sun to burst forth with genial warmth as in the brightest day of our best days of May in England. Many such days enliven the invalid in the winter—a perfect Italian sky, without a cloud, when ladies are seen promenading the sunny side of the shores of the Arno, dressed in summer satins and velvets, with parasols, whilst some splendid military band enlivens the promenades with its magnificent music.

I shall notice the mineral waters of San Guiliano in the neighbourhood of Pisa, first, from their being by popular consent and from the experience of some of the most eminent professors in the University of Pisa, in the highest repute. Secondly, on account of the facilities of conveyance to them from all directions. The great antiquity of these baths is generally admitted. They were known to the Greeks in the time that Pisa was a Grecian colony, so far back as the tenth century before the Christian era. Some ancient remains of columns and capitals are still to be found on the site, which, being placed by some barbaric hands in the walls of more recent edifices, cannot be contemplated without a sigh, as lamentable indications of the devastation of ancient magnificence.

One of these columns is of mixed dark blue-and-white marble, commonly denominated *Bardiglio*, and of which the quarry and neighbouring mountain consists. This column is fluted or striated, but the striæ are not

straight as observed in most of the ancient columns, but spiral, descending from left to right, in the same manner in which examples are more rarely seen in Roman ruins. The other column is plain, of whitish marble, called Marmo Pisano, of which the quarry in the mountains of the baths is composed.

There remain likewise two ancient capitals, which neither correspond with each other, or with the column. That which is placed above the striated column is larger than it, and of sandstone, commonly called verrucana, and is of extraordinary design, being in its body octangular, adorned with some heads, probably representing deities; one of which is with a veil like Isiaco; another with two distinct heads attached to the same neck; and another, obscured by the wearing away of the stone, indicating apparently the most remote antiquity and mythological fable.

The other capital is equally octagonal, but smaller, and of white Carrara marble, similar to the Doric order, but more adorned with oval and twisted leaves. These four ancient specimens of architecture appear to show that the place must have been frequented in the time of the ancient Greeks and Etruscans. When the Romans became masters of Tuscany, which continued for about 800 years, from the third century before Christ, until the end of the fifth century of the Christian era, these thermal baths appear to have been in high esteem. An antique inscription still

remains on a broken tablet of black marble, and is at present to be seen on the wall to the left hand of the entrance to the eastern fabric of the baths. The words are—

..... S·M·L· EROS AQV......
RVM AEDICLAM.....

which appears to allude to a certain individual whose name was Mark, with the Greek surname *Erote*, or Love, whose office was that of aquario, or superintendent of these baths. Pliny is believed to have alluded to these baths in his Hist. Nat., in these words:—
"Patavinorum aquis calidis virentes innascuntur herbæ Pisanorum Ramæ."

The celebrated Princess Matilda, amongst her other numerous public acts, is supposed to have added much to the improvement of this establishment in the twelfth century; so likewise the Grand Duke Ferdinand I., de Medici, and other descendants of that illustrious family. His Imperial and Royal Highness the present Grand Duke is also a great patron of this really useful establishment.

The baths of San Giuliano are accessible from Pisa by the Lucca Railway in eight minutes—a very great advantage for the inhabitants of Pisa. From Leghorn they are arrived at in forty minutes, and from Florence in about three hours. For the inhabitants of Pisa there is likewise a good level road, shaded by an avenue of trees, the distance being

about three English miles from the famous Leaning Tower. Close carriages are always available for invalids. Running parallel with this road is a navigable canal, by which gondolas supplied with every convenience proceed twice a day to and from the baths; they are used also by some as passage boats. They resemble the budgerows of the Ganges. All these means of conveyance are upon the most moderate scale of charges.

The Grand Duke and family sometimes spend a month at these baths during the commencement of the season in May, at which time the place is enlivened by the concourse of the higher classes to enjoy the hospitalities of the Court.

Site.—The locality of the baths is at the base of the Monte Pisani, which shelters them from the north, and especially from the *Tramontana* winds.

The Pisani plain is watered by the streams of the Serchio and the Arno and by the canal which communicates between these rivers; it is richly cultivated, and shaded with vines and poplar trees. The mountains immediately behind the picturesque village of San Giuliano are covered with plantations of olive and cypress trees. The air is perfumed by the luxuriant vegetation, and the water of the canal tends to cool its shady avenues. The periodical winds from the seacoast prevail during the summer from ten in the morning until the evening. The air is pure and

salubrious, the inhabitants are robust, and many of them live to a great age. Spring usually commences about the middle of March, when the weather becomes generally mild. The baths are situated in the centre of a square, ornamented with two fountains. They are distributed into two nearly parallel ranges termed the oriental and the occidental. They are of neat and symmetrical architecture; each building has a great number of apartments, and the baths and floors are of the finest polished marble. They are arranged as follows:—

I.—ORIENTAL RANGE.

In about the centre of the fabric is the spring called del Pozzetta, or small well.

The large or public baths are four, viz., Jupiter, Juno, Ceres, and Neptune, three of which are for men, and the fourth for females. A separate spring supplies the smaller bathing rooms of Apollo, Diana, Minerva, and Mercury. These serve for private immersion. In this fabric are also six tinnozze with douches, the four first of which are indicated in progressive numbers; the fifth is termed Tinnozza nuovo; the sixth is called dei Deputati, for the use of the gentlemen who preside over the administration. In one large room, separated from each other by means of so many curtains, are ten external douches; also four smaller apartments adjoining.

In so many small and separate apartments are the

following; two with the convenience of doccie of all kinds.

In other rooms are four external douches, which are for the poor; and for the same class are two small apartments with every convenience.

There are ante-rooms and apartments for repose after the bath, which conveniences are separated, and distinct for both sexes. The water is termed Rinfresco, which, in this group, comes from the ancient baths of Caldaccoli, which also supplies the public fountain.

II.—THE OCCIDENTAL GROUP, CALLED ALSO DELLA REGINA.

In this fabric is the Bagno Della Regina, destined for ladies, which is supplied by two springs, one of which is warm, and the other temperate; they are situated apart, but serve together to fill the grand reservoir. Next comes the Tinnozze, which is filled with water arising from one source.

The Bagno di Marti is for immersion of the male sex alone, and has a source separate from that of the Tinnozze above mentioned. There are eight tinnozze.

The water which is appropriated for these doccie and respective tinnozze is re-united in one grand conservatory, above which is a hall for the accommodation of those who are waiting for their turn to bathe, or for repose after bathing. In this same group are the sources termed Ebrei. One source is hot, and supplies seven baths, in

four of which are doccie: the rest are without. Another spring of water, of a lower temperature from the preceding, fills a tinnozze called the temperate bath, degli Ebrei.

There likewise are private apartments for internal doccie.

At a short distance from the northern extremity of the baths is the large building called the Palazzo dell' Opera dei Bagni, a handsome edifice ranged in a crescentic form, and facing the fertile plain below. The Palazzo consists of numerous suites of furnished apartments, which can be hired for any time as a reasonable rate, and during the period from November till the 1st of May, the rent is only half price. The centre of the building is the casino for public entertainments, balls, vocal and instrumental musical performances, &c. There is likewise a theatre, a piazza, and a garden with marble benches, on the banks of the canal sheltered by acacias and willows. The whole establishment is the property of the Government, under the direction of a Committee of Management composed of the principal authorities of Pisa.

The "Palazzo dell' Opera dei Bagni," like many other similar edifices in Tuscany, does honour to the memory of the munificent prince who caused it to be erected; and no one who touches at Leghorn, or makes but a flying visit to Pisa, should omit to proceed by railway in eight minutes from that city, to visit the Palazzo and the baths. Many friends of mine after the dérangement of a short sea voyage, have found themselves refreshed by





bathing in these mineral fountains; or, as a French author grandiloquently expresses it, "the physiological balance of their nervous and vascular systems restored."

I recommend those who have been tossed the previous night on the waves of the Mediterranean, to try the experiment.

Tuscany could not be in a more tranquil state than it is at present for visitors. I have lived for several months under the indulgent rule of its mild and enlightened prince, who affords every hospitality to strangers; indeed, the affability and kindness of the Grand Duke is universally acknowledged. The Tuscans themselves, generally speaking, are a most peaceable class of people. The peasantry are remarkably civil. Montesquieu preferred Germany to travel in—Italy to sojourn in—England to think in—and France to live in. I say, Italy both to sojourn and live in, not only for the suavity and salubrity of its climate, but for every convenience and luxury of life at a small expenditure; not to mention its classic associations, its monuments of art, science, and literature, and its harmonious language.

CHEMICAL ANALYSIS OF THE WATERS.

| 1,000 parts | by weight | c | ont | ain | | | | |
|--------------|-----------|---|-----|-----|---|--|--|-------|
| Carbonate of | Lime . | | | | ٠ | | | 0.350 |
| 2.5 | Magnesia | | | | | | | 0.031 |

| Sulphate of | Lime | | | | | • | | • | | | • | 1.136 |
|-------------|--------|-------|----|----|-----|---|-----|-----|-----|----|----|-------|
| 21 | Magn | esia. | | | | | | | | | | 0.179 |
| ,, | Soda | | | | | | • | • | | | | 0.435 |
| Chloride of | Magu | nesia | | | | | | | • | | | 0.185 |
| Silica | | , . | | | | | | | | | | 3.032 |
| | | | | | | | | | | | | |
| Fluor, and | Phos | phate | of | Ir | on, | N | Ian | gai | nes | е, | of | |
| | | _ | | | | | | | | | | 0.002 |
| | and Al | lumen | | | ٠ | • | • | | | • | | |
| Lime a | and Al | lumen | | | ٠ | • | • | | | • | | |

1,000 parts by weight contain 0.337 of free carbonic acid. The medium specific gravity of the water is 1.00231. There is some slight variation in the quantity of saline ingredients in the different baths, but the degree of concentration of the solution corresponds with the specific gravity, which is as above stated.

ROUTE FROM ENGLAND THROUGH FRANCE.

It may not be uninteresting to some to offer a few remarks on the journey from England to Tuscany. I shall give my own route:—Arriving in Paris in twelve hours, viâ Dover and Calais, I proceeded to Tonnerre by railway, thence to Dijon, and from

^{*} Professor Giorgo Santi.

the latter place to Châlons. From Châlons by river steamer again to Lyons and Avignon. From Avignon Marseilles by railway. Four French officers happening to be destined, viâ Marseilles, to Algiers, and finding them to be agreeable fellow-travellers, I fraternized with them for the journey. One was a chef de bataillon, another a captain of chasseurs à cheval, a third an officer of the telegraphic department, and the last a captain of gens d'armerie. We put up at the same hotels and table d'hôtes, each paying his share, but we invariably left to the gens d'arme aforesaid to order the dinner and the wines, which were sure to be de la première qualité, and we were not cheated, which is something for an Englishman travelling abroad to have to say. Our gens d'arme was a regular Falstaff in person, who knew perfectly well what good living was. He had only received 30 wounds in the barricades where Louis Philippe lost pluck and his crown in so ridiculous a manner, which did not, however, in the smallest degree interfere with his jolly appearance and gastronomic powers, and many an amusing adventure occurred before we parted at Marseilles. I wish every Englishman may travel as comfortably from Paris to Marseilles for less than £6. The Liverpool screw-steamers, the French and other packets, run regularly from Marseilles to Leghorn, calling at Genoa, the fares of which are moderate.

In our journey we fell in with an American

gentleman bound for Nice, in an advanced stage of consumption. As it was in the depth of winter, snowing the whole way, and he could not speak a word of French, I am only surprised how his American medical advisers could have sent a patient in his exhausted state to Europe at such a season. I endeavoured, of course, to show him every attention as in duty bound, but I fear, like many others, he was doomed shortly to add another name to the long and melancholy list of those who have quitted the comforts and consolations of a home to seek a distant country, only to find in it an untimely grave.







SEA BATHING ON THE ITALIAN SHORES OF THE MEDITERRANEAN.

THERE are very few forms of chronic disease for which sea water cannot be adapted—either pure or mixed with fresh water, and in various degrees of temperature—with equal efficacy as any other mineral water, with the additional advantage of a purer atmosphere generally on the coast.

One of the greatest preservatives of health and longevity is purification, especially the maintenance of a supple clear skin, and a vigorous circulation of the blood in the minute capillary vessels of the surface of the body. The latter is especially effected by sea water. The habitual inurement of the system, in that element, to the momentary shock of cold and the blush of reaction is of peculiar benefit.

For the treatment of various chronic diseases we have the advantage of different kinds of medicated baths, as well as of sea water, at all gradations of temperature, in the bathing establishment of Spezia; and likewise the imported waters of Tettuccio, Tamarici, and Torretta.

The Gulph of Spezia is sheltered by a range of cultivated hills, and further by the Appennines. It

appears more like an extensive lake, in figure resembling a horse-shoe, forming a large segment of a circle, terminated at each extremity by a promontory.* From its peculiar advantages as a safe anchorage, it has been selected as a harbour for the American ships of war on service in the Mediterranean.

The air of Spezia is pure, and tempered in summer by the "maestrale." There is a neatly constructed bathing establishment, with the additional advantage of ferruginous and sulphureous baths—added to which there are all the auxiliaries of one of the most picturesque watering places of Italy; once the favorite resort of Lord Byron.

"Sorge il Casino dei bagni al centro di questo bel Golfo rasente il regio stradale in prossimità alle rive del mare, ombreggiato da un lato da ben disposte file d'acacci, dagli altri dal vago pubblico giardino, e da verzieri che tramandano odori soavi, allietando lo sguardo del passeggiero. Una sala gentilmente addobbata offre l'ingresso allo stabilimento balneario, ove trovansi giornali politici e letterarj a diporto degli accorrenti: seguono le varie camerette destinate ai bagni contenenti ciascuna or una or due vasche di marmo di Carrara di belle forme e capacità, con quanto può essere necessario al comodo dei bagnanti. Fluisce nelle vasche per chiavi separate, l'acqua calda dolce

^{*} To the southward of which Shelley the poet, and friend of Byron, was drowned by the upsetting of a boat.

e fredda, e del pari la marina da altre, da usarsi a piacere, ed a norma delle mediche indicazioni, graduata sempre dal Termometro, tratta dallo stabilimento con apposito meccanismo: ogni cesa trovasi disposta con ordine ed eleganza emulare il più raffinato istituto balneario."*

Previous to offering some practical observations on the various forms of disease which may be cured or alleviated at the sea side, I shall introduce a few remarks on

THE EFFECTS OF SEA BATHING.

The peculiarly invigorating influence of sea bathing appears to be attributable to many causes; among which may be enumerated the stimulating and revulsive effect of its saline contents. The analysis of sea water is as follows:—

| I_{7} | ı 100 | ou | nces | 0 | f | wat | er. | | | | |
|--------------------|-------|------|------|---|---|-----|------|----|---|---|--------------------|
| Hydrochlorate of | | | | | | | | • | | ٠ | Grains. 2068 |
| ,, | Magr | iesi | a | | | | • | | • | | $536\frac{1}{3}$ |
| >> | Lime | | | | | | | | | | $93\frac{1}{4}$ |
| Hydrobromate of | Magr | iesi | a | | | | | | | | 9 |
| Sulphate of Magr | nesia | | | • | • | • | | ٠ | • | | 565 |
| ,, Lime | | | | | ٠ | • | | • | • | • | 28 |
| with traces of iod | line | | | | | Т | 'ota | ıl | • | | $3299\frac{7}{12}$ |

^{*} Dottore Francesco Galletti.

Some share of the tone and energy imparted to the muscular and nervous fibres must be attributed to electricity. "Il bagno devesi considerare," says Dr. Galletti, "altresi come conduttore del fluido vitale, nota essendo quella specie di affine natura del fluido nerveo al fluido elettrico e galvanico, regenerandosi o riordinandosi l'assoluto od intercettato eccitabilità coll'applicazione dell'apparato ellettrico o galvanico. L'acqua calda dolce o di mare è valutata dai fisici Galvani, Volta, Aldini per il miglior veicolo conducente a dirigere il fluido di cui si tratta. Nelle nevralgie, ed altre affezione spasmodiche si può considerare il fluido vitale accomulato, e per così dire assediato nella parte dolente; così nelle paralisi, relasciamente si deve credere cotesto fluido defettivo, od intercettato nel di lei beneficio influsso, parte per difetto di conduttibilità, e parte per difetto di idoneità del membro ed organo affetto."

The movement of the waves and the percussion against the body, together with the somewhat hurried respiration, and the pure air inspired " i principii volatici que si sprigionano da cotesto elemento coll' agitarsi delle sue onde, i torrenti magnetici ed elettrici riconosciuti del celebre Humboldt spiegano la di lui fosforescenza"*

All these co-operate in the salutary influence which art can but imperfectly imitate.

By the habitual use of sea water the body becomes less liable to many disorders arising from change of temperature.* A vital energy is imparted, which is manifested by ruddiness of the complexion, a general glow of the whole nervous and muscular systems, augmentation of the appetite, alertness of the mind, and a stimulating effect on the generative functions of both sexes. The more sudden and momentary the shock, the greater the reaction. But if bathing in the sea be continued too long, or is too often repeated, it has a relaxing and not a stimulating effect.

In a healthy state of the body whether we plunge headlong into water after moderate exercise, or take a shower bath immediately on starting out of bed, before the warmth and excitement of the surface by the bed-clothes has had time to subside; whether, directly after a hot bath, we rush under a shower of cold, or from a Russian vapour bath adjourn to one of snow; the result is the same, viz., reaction to the sudden impression on the nervous and arterial capillary extremities of the surface of the body in a state of excitement; in the one case from previous exercise, in the other from artificial heat.—The heart and ar-

^{*} There can be no doubt that habitual bathers in the sea, and those who preserve the physical tone of their bodies by regular exercise and regimen, are almost exempt from epidemic and contagious maladies—that capricious, intractable, inscrutable scourge of humanity, the cholera not excepted. The best sanatory cordons and quarantines are the improvement of public health.

teries rebound to the impression. This is the *law* on which depends the *safety* of cold bathing.—The individual must always enter the water in a state of moderate excitement or glow.



PRACTICAL OBSERVATIONS AND CASES.

CHRONIC LIVER COMPLAINTS.

Engorgement.—Sea water bath every other day at 100 Fahrenheit. The patient whilst reclining in the bath should allow the water from the spout to fall on the region of the liver (doccia velata) -he may remain from 30 to 45 minutes in the water. A gentleman many years resident in India was submitted to this treatment combined with the internal use of the Acqua del Tettuccio; commencing with five tumblers full every morning before breakfast, and gradually augmented to a flask. This treatment was preceded by a few aperient doses of the Torretta. The lavement (doccia oscendens) was used daily. An abundant excretion of biliary matter was produced, which was followed by a gradual diminution of the enlargement of the liver-by regular exercise and attention to diet he recovered in six weeks. The only deviation from this treatment was that the patient sometimes took a small dose of extract of Taraxicum. Ipecacuanha, and extract of Rhubarb at night, and a dose of Torretta or Tamarici in the morning, whenever there was constipation with pain or uneasiness in the region of the liver or right shoulder-but no mercury was given in any form whatever.

In cases of Constipation with defective action of the liver, a tepid bath, the Tettuccio water, riding and walking exercise, billiards, the use of the Gymnastic clubs in moderation, and regimen, will be found highly beneficial—as also in cases of hypochondriasis connected with hepatic derangement and indigestion. The same may be said of decided melanchely.

I have seen cases of Amenorrhæa and Dysmenorrhæa cured by the external and internal use of mineral waters, especially those kinds of deranged uterine functions dependant on or connected with atony and diminution of the red globules of the blood, in connexion with appropriate regimen.

Case of engorgement of the neck of the womb with ulceration. A lady, 36 years of age, having laboured under a protracted leucorrhæa with many sympathetic pains and nervous symptoms, induced me to suspect disease of the neck of the uterus—further examination with the speculum confirmed this. The warm tepid baths of Pisa * were combined with local and general treatment. The neck of the womb was abraded, engorged, and ulcerated, and required several applications of the nitrate of silver. The patient used the ascending doccia every time she took the baths, with the best results. She improved in appetite, became much stouter, and completely recovered of the local disorder. She had not conceived for seven years, and had always been out of health for a considerable time. There is no reason to despair of her again becoming a mother now that her health has been restored.

That the employment of thermo-mineral waters, and especially the external and internal douche, combined with other judicious treatment should often be the means of removing sterility may be well imagined, but this can only be in consequence of the restoration of the general health and of the special functions of the uterus.† The frequent and copious irrigation of the womb by means of the doccia interna is of valuable assistance in the treatment of engorgements, fissures and ulcerations of the cervix.

Although a purely surgical case, with which the use of mineral waters has nothing to do, I cannot help alluding to an instance of abscess at the posterior and inferior part of the uterus, in a highly respectable young unmarried person, to which case I was called, in consultation. The pains were of a most excruciating description—entirely resembling those of a most difficult parturition. This abscess I detected by careful examination, and I had the extreme gratification of entirely relieving her of these sufferings by puncturation per anum, by which means an enormous quantity of pus was discharged,

- * I consider the diluted tepid sea bath equally good in most cases.
- + The authors who treat of mineral waters from the time of Cocchi, who wrote a century ago, are fond of vaunting their virtues in this respect with somewhat of Romance, which I suppose was the reason why a Cavaliere at the Bagni di Lucca caused a statue to be placed at one of the baths, representing the Goddess of Fecundity guiding an illustrious Roman Princess, and inviting her to descend into the water in the following mellifluous numbers:—

"All' onda salutifera Le care membra affida; Ecco son' io la Najada Che lo governoe Guida."

with speedy diminution of the pains. She recovered without the slightest injury, to the great delight of her parents.*

Pulmonary consumption in the earlier stages is often much alleviated, notwithstanding the fears entertained by some of tepid bathing-but this can only be ventured on when the warm weather has fairly set in. The organs which act vicariously to the lungs are the skin, the liver, and the kidneys—that is, they give out carbon from the blood—the bile especially is rich in carbon and hydrogen; these organs remove the waste products from the blood after nutrition; and consequently when the lungs are diseased, the combustion of blood in the lungs, so necessary to the maintenance of life, being imperfectly performed, the functions of the liver and the skin, in an especial manner, require attention. The use of unctuous, followed by saponaceous substances, and then the hair glove in a warm fresh water bath, will remove a considerable layer of the epidermis together with much sebaceous matter, thus liberating the pores of the skin, and keeping up as it were a sort of superficial respiration, with decided relief to the patient. Warm sea water should finally be allowed to flow over the body. The invalid must be careful, however, not to quit a warm apartment for the rest of the day. The above treatment, with the alterative action of the Tettuccio, will improve the functions of the liver and skin, and with a mild but pure air, and nutritious diet, is at all events the most likely to check the progress of the early stages of phthysis. I am perfectly sick of the name of the so-called specifies which are constantly presented to the notice of the public-gorging the unfortunate victim with cod-liver oil, depressing his vital powers with digitalis, acetate of lead, and a host of other drugs, which interfere with the more rational treatment of diet and regimen. The principal indication is to improve the state of the blood and of the general health.

In many diseases of the kidneys, ureters, bladder, and urethra, much benefit is derived from a course of warm and tepid bathing, the Tettuccio waters taken in the morning, and the acqua acidula di Asciano as the ordinary beverage at meals.† It contains a

^{*} I allude to this case because I never took an opportunity of recording it before, and on account of its being so very rare that I do not recollect to have heard or read of one similar to it.

⁺ Exported in bottles from a spring in the Monte Pisani. It is an exhilarating tonic beverage, useful in impaired digestion and other complaints of the stomach, where the appetite is vitiated, and heartburn follows the ingestion of food—also in catarrh of the bladder, &c.

| very | large | quantity of | carbonic | acid | gas, al | out | $\frac{2}{3}$ ds | of its | volume. |
|------|--------|-------------|-------------|--------|---------|------|------------------|--------|---------|
| The | saline | principles | existing in | n 1,00 | 0 parts | s of | this | water | are— |

| The saline principles existing | ıg ın | 1,000 | parts | 3 01 | this | wate | r are— |
|--------------------------------|---------|--------|-------|------|------|------|---------|
| Carbonate of Lime | ٠ | | | | | | . 6.290 |
| Chloride of Magnesia | | | | | | | . 1.970 |
| " Sodium | | | | | | | . 0.330 |
| Sulphate of Iron, organic ma | itter a | and lo | SS. | | | | . 0.106 |
| | | | | | | | |
| | | * ' | Total | | | | 11.601 |
| | | | | | | | |

In chronic scrofulous affections where it is desirable to produce only a deobstruent effect, it will be necessary to administer the Tettuccio water in small doses—a tumbler full every morning fasting—by which means the hydriodate of potash is absorbed into the system. Tepid immersion in sea water is often useful in alleviating that phlogosis of the glandular system, the ordinary results of which are induration and suppuration. The diet ought to be stimulating and aromatised. I have witnessed much benefit from the above treatment of those cases, and also in scrofulous opthalmia with small pustules and ulcers of the cornea, accompanied with intolerance of light, a symptom which is characteristic of the disease. The Asiatic ointment to the brow and forehead which, as Superintendent of the Eye Infirmary in Calcutta, I found so useful in many affections, is the best application for removing intolerance of light.†

Numerous are the cases related by Giuli, Mallucelli, Barzelotti, and many other Italian authors of the obstinate cases of *Chronic dysentery* and diarrhea which have yielded to the Tettuccio waters and the thermæ of Monte Catini. But for many persons the more salubrious air of the coast, and the tepid sea water baths, render the latter locality preferable. The Bagni Leopoldini of Monte Catini are artificially heated, so are the sea water baths. The composition of the waters is, for all practical purposes, similar, only the quantity of saline substances in the Mediterranean and at the Thermæ of Monte Catini are nearly as three

^{*} Il Professore Giorgio Santi.

⁺ Composed of dolichos pruriens, in a very small quantity alumen, opium, belladonna, and pulvis curcumæ. *Vide* a work on Diseases of the Eye, and Lectures on Optics, &c., by F. H. Brett, M.D., F.R.C.S. Hatchards, Piccadilly; and Churchill, Princes Street, London.

to one. It is desirable in some cases to dilute the sea water with spring water.

In cases of *Chronic gout*, which affects individuals of a bilious temperament and sedentary habits, combined with much derangement of the stomach and liver, the Torretta and Tettuccio with tepid baths are calculated to remove the disease, and prevent its recurrence.

With regard to *Rheumatism*, a gentleman of Oxford University had been obliged to give up his Academic studies and seek change of climate, with the view of obtaining relief for a very obstinate and painful *sciatica*, for which every kind of treatment had been tried in England but in vain. His ultimate recovery was effected by hot saline baths continued for an hour with the local doccia velata, and by the Tettuccio in purgative doses.

Many cases of *Lumbago*, and other forms of rheumatism are related by Professor Giuli and others, cured by the Tettucio.

I have seen a very obstinate case of *stricture* with écoulement cured by surgical treatment *in* the bath, and that in a very short period, the patient at the same time drinking the acidulated waters of Asciano to allay irritation of the bladder; and the Torretta occasionally as a purgative.

In syphilitic eruptions the tepid diluted baths are valuable in conjunction with the Tettuccio and other internal remedies. Generally speaking this mode of treatment is most beneficial where there is but little tendency to inflammatory action, but rather a deficient degree of energy of the skin; as in the more obstinate forms of herpes, psora, eczema, impetigo, psoriasis, or lepra; but I generally use in most of these affections other remedies at the same time. I had the pleasure of curing an American gentlemen of one of the most obstinate cases of secondary symptoms with which man can be afflicted, by a system of treatment in which baths and Tettuccio water constituted an essential part. I likewise cured a Polish Major of the Hungarians then at Constantinople, who consulted me for a similar complaint. I sent him to the Thermæ of Broussa, from whence he returned in a month so stout that I scarcely knew him.

The cold local douches and shower-baths are used with much benefit in *hysteria*, and many nervous disorders, as auxiliaries to other treatment.

10S CASES.

There is a form of nervous disorder produced by excess of alcoholic potations, not only delirium tremens, but all the gradations of nervous irritation from the same cause. The best way to cure this condition, and the habit of strong drinks, is, a course of the Tettuccio waters, the acidulated waters of Asciano, which "exhilarate without inebriating," and the thermae, with good diet and support. It is not uncommon, even in the present day, for some foreign practitioners to bleed in a paroxysm of delirium tremens. I happen to know from a Dr. Milligen who was with Lord Byron during his last illness, that his lordship was in the habit of taking large quantities daily of hollands or rakkey—an "oka." In the "low nervous fever" under which he laboured, nothing could have been more rash than bleeding such a patient!*

The cold douche to the brain and spine; chops and cayenne pepper; bottled pale ale; exercise, if possible, in the open air; and, when the severity of the paroxysm has passed, to purge the liver and rid the blood of its *superfluous carbon*, a partial hot bath as high up as the region of the liver; a good dose of calomel, antimony, and hyoscyamus; then the Tettuccio waters, and the acqua acidula afterwards—is the way to cure the *horrors*.

Lord L—— was in this predicament in Spain: a true Sangrado was called, and the vital fluid was about to be extracted; but a *friend in need* interfered, and adopted a different treatment.

Finally, as a means of preparation for surgical operations, especially for Stone, either by the lateral operation, or lithotrity, as the case may be; Cataract, Fistula, and many other cases. Patients are rendered in a better state of general health safely to undergo all serious operations by a judicious preparatory treatment of mineral waters and baths. Most extensive experience enables me to speak with confidence on these points.† How often in consulting practice in London and elsewhere, have I witnessed the a ilure of operations on the Eye, under the care of some of our

See a work on Surgery in India, by F. H. Brett, M.D., F.R.C.S. The writer has operated 109 times for Stone in India and Egypt; for Elephantiasis 8 times for Cataract, Artificial pupil, Strabismus, &c., &c., times innumerable, at that large and noble institution of which he had charge in Bengal; also at Lahore, Delhi, Gualior, &c. The results of many of his operations appeared in the Lancet in 1845—46—47.

^{*} Related to me by Dr. M. on board a steamer on the Bosphorus.

most skilful surgeons, from the supervention of rheumatic inflammation, or some other form of Opthalmia, owing to the very variable climate of England. In that diathesis of the system which leads to the formation of Gravel and Stone, the use of thermo-mineral baths and waters, mild alterative treatment, the drinking the waters of Asciano, combined with the effect of the elimate of Italy, and other parts of the "genial south," by changing the condition of the blood, by removing irritation of the mucous membrane of the urinary organs, of the skin, and of the liver, render operations far less hazardous. During my travels in India, Europe, the Ottoman Empire, Egypt, Greece, and many other countries, my attention has been much directed to the statistics of the results of surgical operations in different climates, and the conclusion is very much in favour of Italy.

CASE OF SCROFULOUS ENLARGEMENT OF THE GLANDS OF THE NECK.

(REPORTED BY DR. MALLUCELLI.)

Louisa Fatichi, of Florence, aged 9 years, who had for many years been subject to scrofulous disease, which was neither congenital or hereditary, presented herself in the summer of 1816, with extensive swelling of the neck, from enlargement and suppuration of the glands, and considerable emaciation. After the use of the Thermæ of Leopold for immersion, and the waters of Tettuccio for 38 days, the sores were entirely healed, the enlargement of the neck much diminished, and she had gained considerably in health.

APOPLEXY FOLLOWED BY PALSY.

(MALLUCELLI.)

Il Signor C. O. M., of Pistoia, aged 30 years, having recovered from an attack of Apoplexy, remained paralysed in the arm, hand, and leg of the right side.—His speech was also affected. He was of vigorous constitution, and of plethoric habit. This patient was treated with purgative doses of Tettuccio for 30 days, during which time he was likewise submitted to immersion in the Thermæ of Leopold, and douches sometimes directed on the neck, and sometimes on the paralysed parts, with daily amendment. On the 37th

day from the commencement of the treatment, he had recovered his intellectual and locomotive powers, and his natural hilarity of spirits: and up to the year 1837 (a period of 28 years from the first attack), he remained in the enjoyment of bodily health and soundness of mind.

ARTICULAR RHEUMATISM.

MALLUCCELLI.

Madame N. M—— "Anglaise," more than 60 years of age, came to the baths of Monte Catini in 1838. She had frequented many other establishments in Italy and elsewhere. The joints of both hands were swollen, but not anchylosed, although their movements were considerably impeded on account of chalky concretions. The state of this lady was so much ameliorated after 30 immersions of moderate duration in the Thermæ of Leopold, that she was enabled to quit the establishment, to which she returned for precaution's sake the following year, having enjoyed tolerably good health during the eleven months' absence. On this occasion the baths of Tettuccio were prescribed. Dr. Rimer, her English physician, assured Dr. Malluccelli that the lady continued to enjoy excellent health, notwithstanding her advanced age.

WEAKNESS OF THE INTELLECTUAL FACULTIES FOLLOWING FREQUENT HEADACHES.

(MALLUCCELLI.)

The Rev. Don G. Z., of Florence, after having been subject for many years to severe headaches, his intellectual faculties became at length so impaired that he used to break off suddenly even in the shortest sentences, and was unable to renew the thread of his discourse. In this state he visited Monte Catini in 1844. His temperament, as well as the ardour with which this ecclesiastic had pursued his studies in early life, induced the belief that the malady was idiopathic, especially as he had experienced some derangement of the hepatic portal system. The indication appeared to be to restore the circulation in the liver to a normal condition. With this view baths were prescribed at

27° Reaumur, and douches to the region of the liver—the Tettuccio being at the same time given in tolerably large doses. After fifteen days he began to recover gradually his ideas, and ultimately he no longer hesitated in his speech, so that he was able to resume a laborious literary pursuit which he had, from discouragement, abandoned for some time.

PARALYSIS OF THE LEFT SIDE OF THE FACE BY INSOLATION. (GIULL.)

This appears to have been a case in which exposure to the sun had occasioned a sort of local paralysis of one side of the face, and a sort of hydropathic reaction had been produced by the tepid douches applied to the affected part, whilst the general circulation was in a state of excitement by a hot bath. The patient recovered.

CASE OF EPILEPSY.

(MALLUCCELLI.)

M. Melonis Bolonais, aged 46 years, of nervous temperament, was subject to frequent paroxysms of epilepsy. He stated that the fits were always preceded by intense pain in the right hypochondrium, followed by vertigo, and then total loss of sense. The convulsions and foaming at the mouth generally lasted for an hour. Dr. Malluccelli does not know whether the presence of biliary calculi which appeared to exist from the frequent severe pains, the dejections of biliary matter, and the sub-icteroid appearance of the patient had attracted the notice of the physicians who had sent him to Monte Catini. The region of the liver, on examination, was found to be full and painful on pressure. The spasms which preceded the epileptic paroxysms extended from the liver to the epigastric region, at which part the pain was most severe. The patient was recommended to take the Tettuccio in large doses, joined to the thermal baths and the douches .-In 15 days he took 28 baths. The waters of Tettuccio produced green evacuations; and during their use he was exempt from pain, and had no fit. When he presented himself at the establishment two years afterwards, the liver had resumed its normal

condition; there was no uneasiness on pressure. He underwent the same treatment by way of precaution, for ten days, and was completely cured.

Dr. M. reports six other cases of Epilepsy cured at Monte Catini.

RAPPORTI FRA I TERMOMETRI.

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ERRATA.

Page 74, line 13, for "longtrées," read "contrées." ,, 90, ,, 11, for "as," read "at."

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ERRATA (CONTINUED).

Page 106, line 17, for "opthalmia," read "ophthalmia." ,, 109, ,, 2, for ditto read ditto.

